331.2
Un342o
no.5

OCCUPATIONAL WAGE RELATIONSHIPS

ELECTRIC LIGHT AND POWER
1945

SERIES 1
NO. 5

THE LIBRARY OF THE
JUN 24 1948
UNIVERSITY OF ILLINOIS

UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

WAGE ANALYSIS BRANCH
INDUSTRY WAGE STUDIES DIVISION
HARRY OBER, CHIEF

PREFACE

The Industry Wage Study program of the Bureau of Labor Statistics is designed to yield a variety of wage data for use in collective bargaining, wage determination, placement, and minimum wage administration.

The results of the Industry Wage Studies are made available in two series of bulletins. Series 1, entitled "Occupational Wage Relationships", provides measures of prevailing wage relationships among key occupations in each industry in terms of indexes. Series 2 on "Wage Structure" is devoted to an analysis of actual hourly earnings (straight-time) and the various elements that influence variations in wages such as location, size of establishment, methods of wage payments, and the occupational composition of each industry. This series also presents information relating to such practices as shift differential payments, paid vacations, paid lunch periods, nonproduction bonuses, insurance, sick leave, and incentive wage systems. Locality tabulations (forms OWR-17 and 18) are available in the regional offices of the Bureau.

JULY 1946

Digitized by the Internet Archive
in 2018 with funding from
University of Illinois Urbana-Champaign Alternates

https://archive.org/details/occupationalwage5819unit

OCCUPATIONAL WAGE RELATIONSHIPS IN THE ELECTRIC LIGHT AND POWER INDUSTRY, JULY 1945 1/

INTRODUCTION

The occupational specialization required to operate an electric light and power system is accompanied by a wide diversity in pay scales. The differences in occupational wage rates make up an important aspect of a system's wage structure. It is the object of this study to utilize the extensive wage data available for the electric light and power industry in order to determine the central tendencies in occupational wage relationships.

The method adopted for this purpose is as follows: in each electric light and power system covered the average hourly wage rate paid to journeymen linemen 2/ was used as a base (100); average rates paid to other occupations were converted to a percentage of that base. In this manner, a ladder-like arrangement of occupational indexes was developed for each system. In order to obtain a representative scale for the industry as a whole and for the principal regions, the median or midpoint in an array of system indexes for the same occupation was selected. 3/ Since some measure of variation from the median is essential in order to provide flexibility in the use of the data, the middle range within which half of the system indexes fell is shown in the accompanying tables.

It is a common practice in wage determination first to set rates for a limited number of key jobs, usually with reference to prevailing wage levels. Once rates are determined for these jobs, the fixing of wages for other occupations is considerably simplified. Principally for this reason, the Bureau's industry wage studies provide occupational wage data for key jobs only--that is, jobs that are found in numerous establishments; those that engage a substantial number of workers; and those that have been used as bench-marks in wage negotiations. In the electric light and power industry, the selected occupations represent guide-posts along the entire range of functions, skills, and earnings. 4/ The relative positions of other occupations in the wage scale can be arrived at by comparison and interpolation, taking into account general similarity in job content.

1/ Prepared by Joseph W. Bloch. Data were obtained through a survey conducted under the direction of the Regional Wage Analysts of the Bureau. A forthcoming bulletin, "Wage Structure: Electric Light and Power, 1945", describes the occupational and wage structure of the industry.

2/ This classification does not include linemen employed only on dead lines or on secondary lines of low voltage. Journeymen linemen, constituting by far the largest occupational group in the industry, are employed by almost all systems. For this reason, their wage rates made the most suitable base.

3/ The median is preferable to the arithmetic average in this instance since it is affected by extreme cases in a considerably lesser degree.

4/ Job descriptions for the electric light and power industry are available upon request.

The occupational wage patterns indicated in this study constitute backgrounds in the light of which system wage problems may be examined. Specifically, considerable use can be made of these patterns for comparing differentials between occupations or skill levels, for evaluating out-of-line rates, and for placing new jobs into the wage scale.

NATION-WIDE WAGE RELATIONSHIPS [5]

While primarily engaged in producing and distributing electricity, electric light and power companies may also produce and sell gas or steam, operate transportation systems, distribute water, or engage in enterprises not necessarily of a public utility character. In July 1945, an estimated 240,000 workers were employed in the multiple activities carried on by over 400 light and power companies; of these, approximately 196,000 could be termed electric light and power workers, employed in maintenance, generating, distribution, installation, servicing, and office work.

The Bureau's survey covered 130 companies and 91,000 light and power workers. Since the electric transmission lines and services under the control of light and power companies usually extend beyond the municipality limits within which central power plants and offices are situated, the wide geographic coverage of this sample survey is evident. For the analysis of wage relationships, companies with fewer than 51 workers and those that employed no journeymen linemen conforming to the Bureau's job description were excluded; in all, July 1945 pay-roll data from 91 systems were used. Of these systems, 51 employed more than 500 workers and 40 had between 51 and 500 workers. Because of company differences in occupational structure, none of the occupations studied, with the exception of journeymen linemen, was found in all 91 systems. The earnings of the small proportion of the industry's workers paid on a group bonus basis were omitted from the data.

General Wage Pattern

In table 1 the national median indexes [6] for the selected occupations are presented by major functional groups, for men and women workers separately. The middle range within which half of the indexes fell and the number of systems reporting each of the occupations are also shown. Separated into two broad groupings--maintenance, operating, and custodial occupations and office occupations--the key jobs are arrayed in chart 1 in descending rank corresponding to their respective positions in the national wage ladder.

---

[5] The relationships indicated in this report will not coincide with the relationships implicit in the actual average earnings data presented in the report "Wage Structure: Electric Light and Power, 1945". While the difference in coverage is of minor importance, the two studies differ significantly in purpose and method. In order to indicate wage relationships, the spread between wage rates rather than rates as such were measured and averaged. For this purpose, it was necessary to equalize wage levels and employment among the covered systems; this was accomplished by use of the index method and the unweighted median. On the other hand, in order to compute average wage rates of all workers in a given occupation, it is, of course, necessary to combine actual rates weighted by company employment in the occupation.

[6] Indexes represent percentages of the rates paid to journeymen linemen. They can also be used to compute the approximate percentage spread between other occupations. For example, the national median indexes for class A and class B switchboard operators were 97 and 86, respectively. The average wage advantage of the class A workers over the B workers was, therefore, 13 percent (97/86).

Among maintenance, operating, and custodial occupations, the highest positions in the wage scale were held by load dispatchers and watch engineers, on an equal level 14 percent above that of journeymen linemen. Lowest in the scale were janitors, earning 58 percent of the linemen's rate. Several clusters of occupations at identical wage levels are evident in the industry-wide wage scale. For example, maintenance machinists, maintenance electricians, and the base occupation, journeymen linemen, tended to receive the same hourly rate. Trouble men, who are usually qualified journeymen linemen, ranked slightly higher in the wage scale than the base job. 7/

Company wage policy governing office workers is usually distinct from that covering operating and maintenance workers. However, by relating office wage rates to linemen's rates the relative positions of office workers in the typical system wage scale as well as the wage differential between one office occupation and another can be observed. In chart 1 both functions are illustrated. In terms of average hourly earnings, men hand bookkeepers held a position comparable to skilled trouble men, while pay-roll and accounting clerks were on a level with turbine and boiler operators. Women office workers, including the higher skilled, occupied positions at the lower end of the wage ladder, below truck drivers. Men office workers held a substantial wage advantage over women in jobs of similar character though possibly with lesser responsibilities.

Variations in wage practices among the 91 systems covered are indicated in part by the middle ranges of indexes. The spread in this range was widest for load dispatchers, watch engineers, district representatives, men bookkeepers, and, on the whole, for office as against non-office occupations. On the average, the deviation covering half of the light and power systems amounted to 7 percent (plus and minus) of the medians for maintenance, operating, and custodial occupations and about 10 percent for office occupations. These percentages, although approximations, are useful in providing a uniform range for all occupations, particularly if the series of indexes is converted to a new base. 8/

7/ While differentials between occupations are not expressed in cents-per-hour, a rough translation can be made. Wage rates of journeymen linemen in most companies exceeded $1.00 an hour. It follows, therefore, that since the base (100) against which other occupational rates were measured represented more than $1.00 an hour, the arithmetic difference in index points between any 2 occupations is slightly less than the cents-per-hour differential.

8/ Index series may be converted to another base or to two or more bases, the choice of base depending upon the purpose for which the indexes are to be used. For example, relationships to the lowest-paid occupation, janitors, can be determined by using the median index 58 as a base (multiplying each index by 100/58). A separate series of index for office workers may be set up, with any occupation as base. The converted indexes, plus and minus 7 or 10 percent, as the case may be, will set an approximate range covering 50 percent of the systems. While not rigorously precise, this method of conversion is sufficiently reliable to serve most purposes.

Variation by Size of System 9/

In table 1 median indexes and middle ranges are presented separately for systems with more than 500 workers and those employing from 51 to 500 workers. In chart 2 the relationships among occupations represented in both size groups are shown. Occupations are placed in the order in which they rank in chart 1.

The ranking of occupations in the two size groups showed a high degree of similarity. The widest difference in position was indicated for district representatives, who appeared considerably higher in the wage scale for the smaller systems. In the larger systems, the highest-paid operating or plant occupation was load dispatcher; in the smaller systems, watch engineer. In both groups janitors were at the bottom of the scale. The spread between the highest and lowest occupations was wider in the larger systems (an advantage of 109 percent as contrasted with 89 percent for smaller systems).

The spread between the various clusters of wage or skill levels was somewhat greater in the larger systems. On the whole, office workers appeared higher in the wage scale for this group.

Apart from the general variations in wage patterns, chart 2 indicates significant differences in the relative wage levels of several occupations. Load dispatchers and watch engineers held substantially greater wage advantages over other occupations in the larger systems. On the other hand, district representatives, 10/ truck drivers, and truck-driver groundmen occupied better positions, relatively, in the wage scale for smaller systems. In relation to other occupations, journeymen linemen were at a slight advantage in the smaller systems. Among office occupations, the wage position of women accounting clerks in the larger systems was notably more advantageous than that of similar workers in smaller companies. The reverse was true for men and women hand bookkeepers.

9/ Whether the variations in wage relationships discussed in this section are attributable solely to differences in size of system, as measured by employment, cannot be definitely determined. Other factors, such as unionization and location, may also influence wage relationships.

10/ The most marked difference between the two size groups was observed for load dispatchers and district representatives. In the larger systems, the former occupation held a 29 percent advantage over the latter; in the smaller systems, the two occupations were at a par as a result of the comparatively lower wage level of load dispatchers and the higher wage level of district representatives.

Table 1.--INDEXES OF WAGE RATES 1/ FOR SELECTED OCCUPATIONS IN THE ELECTRIC LIGHT AND POWER INDUSTRY, BY SIZE OF SYSTEM, JULY 1945

(Wage Rates for Journeymen linemen = 100)

Occupation, grade and sex	All systems			Systems with -					
				501 or more workers			51 to 500 workers		
	Number of systems	Median index	Middle range within which one-half of the system indexes fell	Number of systems	Median index	Middle range within which one-half of the system indexes fell	Number of systems	Median index	Middle range within which one-half of the system indexes fell
Men									
Maintenance									
Electricians, maintenance	79	100	95 - 103	51	102	96 - 104	28	99	94 - 102
Machinists, maintenance	50	100	97 - 110	36	100	97 - 108	14	100	99 - 111
Maintenance men, general utility	47	89	84 - 93	27	90	86 - 93	20	89	81 - 93
Mechanics, automotive	67	89	86 - 94	44	88	86 - 93	23	89	85 - 95
Mechanics, maintenance	60	97	91 - 100	42	97	91 - 102	18	96	89 - 100
Production									
Auxiliary equipment operators	55	80	76 - 86	43	80	76 - 86	12	82	76 - 91
Boiler operators	77	90	84 - 97	50	91	84 - 98	27	89	85 - 92
Switchboard operators, class A	66	97	92 - 103	45	100	92 - 102	21	95	91 - 103
Switchboard operators, class B	43	86	79 - 91	26	86	80 - 91	17	85	79 - 90
Turbine operators	63	92	88 - 99	46	94	85 - 101	17	90	88 - 96
Watch engineers	61	114	105 - 127	40	117	109 - 132	21	108	99 - 126
Distribution									
Groundmen	77	68	63 - 71	47	66	62 - 69	30	69	66 - 76
Load dispatchers	59	114	105 - 126	43	121	112 - 128	16	102	96 - 108
Patrolmen	42	84	79 - 94	33	84	78 - 94	(2/)	(2/)	(2/)
Substation operators	71	86	81 - 92	49	86	82 - 92	22	86	75 - 92
Troublemen	67	103	99 - 106	43	103	100 - 106	24	102	94 - 106
Truck drivers	46	75	70 - 80	34	73	69 - 79	12	80	80 - 81
Truck driver - groundmen	51	75	72 - 80	38	75	71 - 80	13	81	74 - 84
Installation and Servicing									
District representatives	48	97	83 - 105	24	94	87 - 100	24	102	83 - 107
Metermen, class A	85	97	92 - 101	51	98	95 - 101	34	95	88 - 99
Metermen, class B	73	85	80 - 90	45	87	81 - 91	28	83	76 - 85
Meter readers	86	73	67 - 78	51	73	70 - 79	35	71	65 - 76
Servicemen, appliance	66	89	83 - 94	42	89	85 - 96	24	87	82 - 92
Stock clerks	77	79	71 - 85	42	78	70 - 85	35	80	74 - 84
Custodial									
Guards	35	65	63 - 71	26	67	61 - 73	(2/)	(2/)	(2/)
Janitors	81	58	53 - 62	49	58	54 - 62	32	57	53 - 62
Watchmen	40	62	52 - 66	32	62	55 - 66	(2/)	(2/)	(2/)
Office									
Bookkeepers, hand	37	102	90 - 114	17	96	90 - 111	20	103	96 - 119
Cashiers	26	81	72 - 93	20	79	72 - 85	(2/)	(2/)	(2/)
Clerks, accounting	56	91	82 - 98	39	92	86 - 99	17	87	78 - 95
Clerks, payroll	23	91	84 - 99	21	92	84 - 100	(2/)	(2/)	(2/)
Office boys	22	48	43 - 53	17	48	46 - 53	(2/)	(2/)	(2/)
Women									
Office									
Billing-machine operators	58	60	52 - 67	34	63	55 - 67	24	57	50 - 67
Bookkeepers, hand	24	74	69 - 85	11	71	69 - 82	13	75	69 - 85
Bookkeeping-machine operators, class B	23	66	59 - 70	21	66	59 - 71	(2/)	(2/)	(2/)
Calculating-machine operators, class A	16	68	64 - 75	14	68	64 - 75	(2/)	(2/)	(2/)
Calculating-machine operators, class B	20	57	52 - 66	16	57	52 - 66	(2/)	(2/)	(2/)
Cashiers	76	62	56 - 71	41	64	58 - 73	35	60	53 - 67
Clerks, accounting	70	71	58 - 77	42	75	63 - 79	28	64	52 - 75
Clerks, file, class A	23	67	57 - 71	19	68	60 - 71	(2/)	(2/)	(2/)
Clerks, file, class B	27	54	48 - 60	22	53	47 - 60	(2/)	(2/)	(2/)
Clerks, general	43	56	49 - 61	22	56	50 - 62	21	52	48 - 61
Clerks, payroll	65	68	61 - 77	37	70	66 - 80	28	67	59 - 72
Clerk-typists	52	54	53 - 59	32	54	53 - 59	20	54	53 - 58
Office girls	36	45	42 - 50	27	46	42 - 50	(2/)	(2/)	(2/)
Stenographers, class A	62	73	68 - 78	41	74	69 - 80	21	68	65 - 74
Stenographers, class B	77	59	54 - 63	47	61	56 - 64	30	57	52 - 62
Switchboard operators	65	58	54 - 63	47	60	56 - 63	18	57	46 - 61
Switchboard operators-receptionists	21	56	48 - 67	10	59	48 - 68	11	55	51 - 60
Typists, copy, class B	25	50	48 - 55	20	53	48 - 55	(2/)	(2/)	(2/)

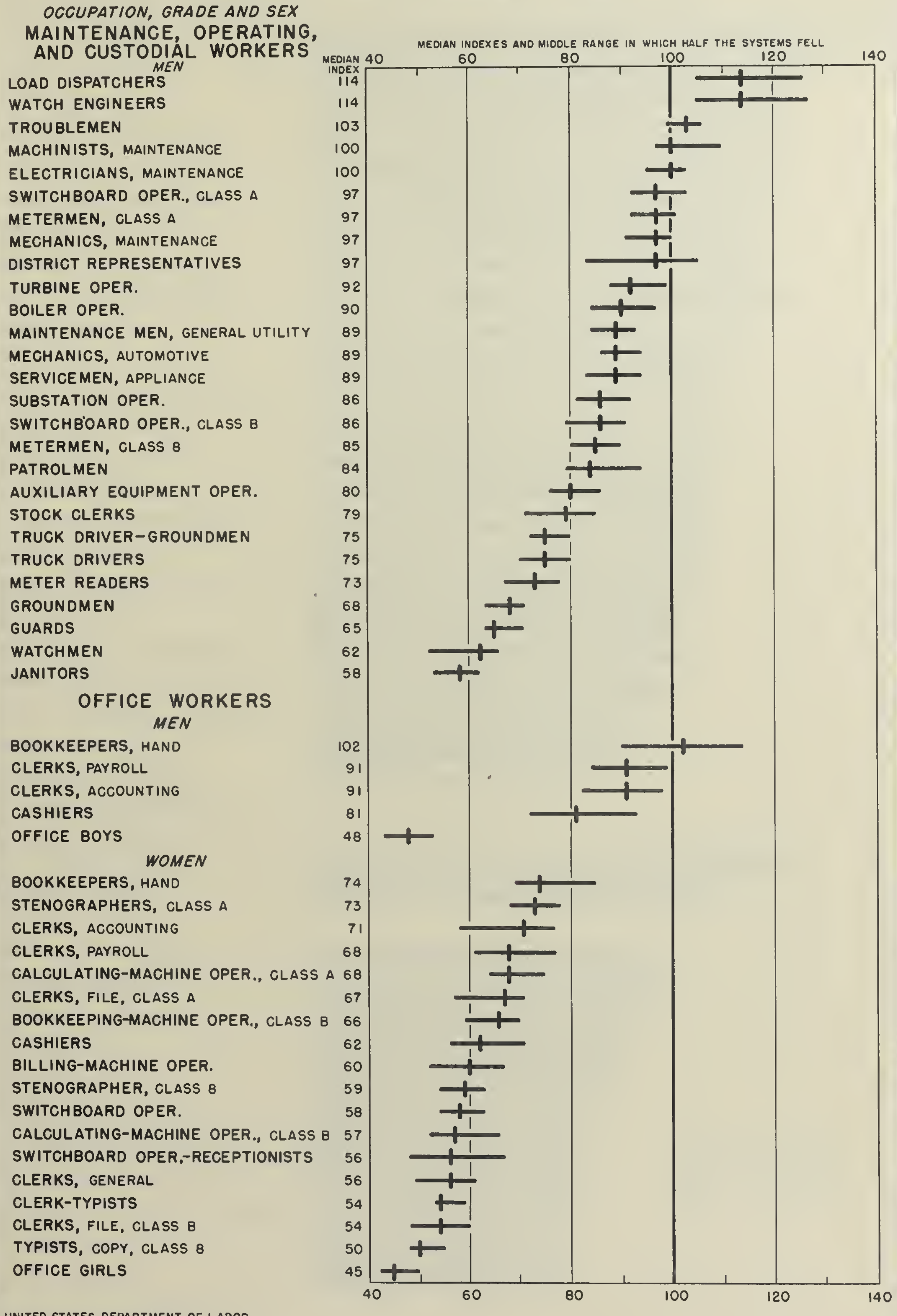
1/ Excluding premium pay for overtime and night work.
2/ Number of systems too small to justify comparisons.

CHART I

INDEXES OF WAGE RATES FOR SELECTED OCCUPATIONS IN THE ELECTRIC LIGHT AND POWER INDUSTRY

JULY 1945

WAGE RATES FOR JOURNEYMEN LINEMEN = 100

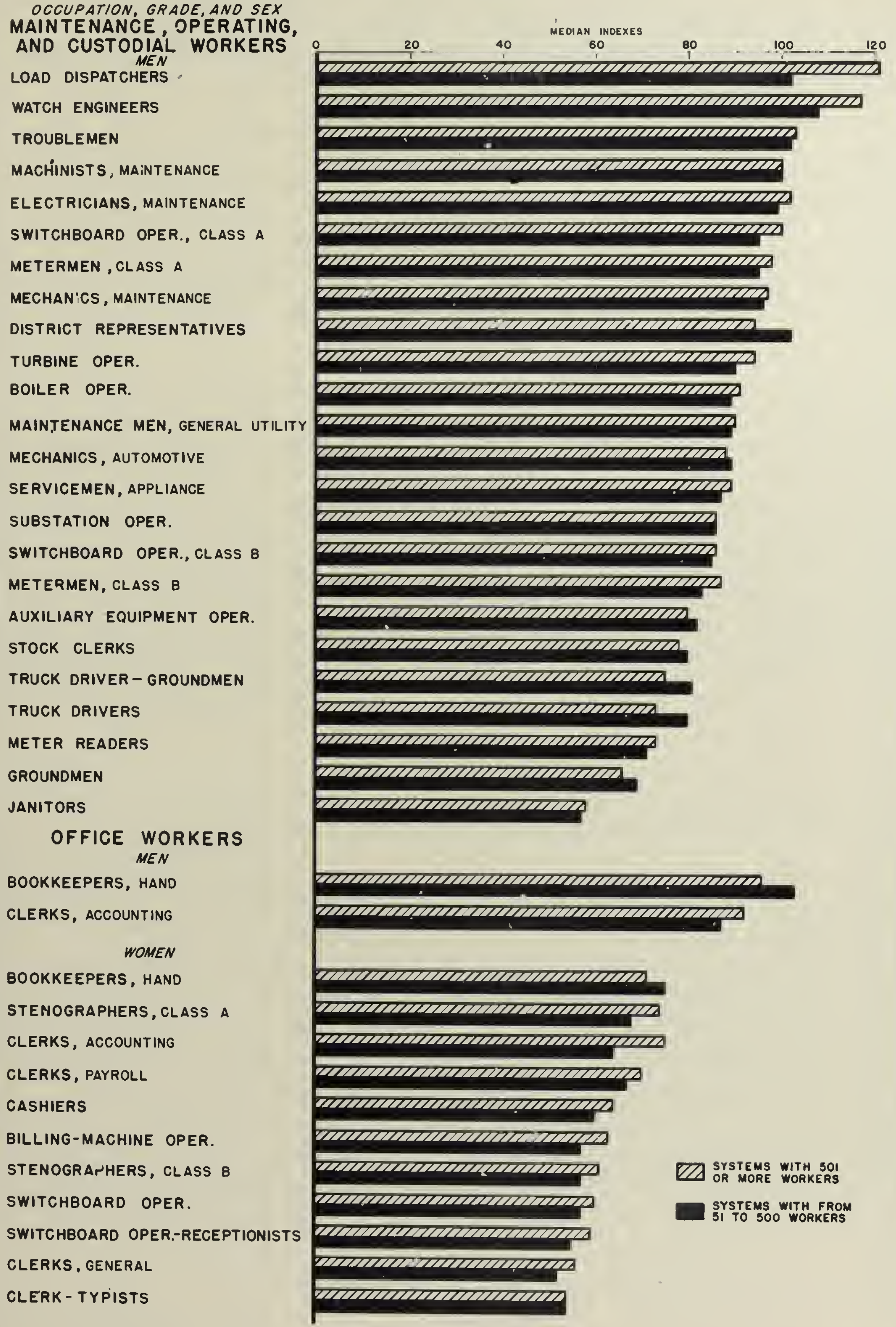


UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

CHART 2

INDEXES OF WAGE RATES FOR SELECTED OCCUPATIONS IN THE ELECTRIC LIGHT AND POWER INDUSTRY, JULY 1945

WAGE RATES FOR JOURNEYMEN LINEMEN = 100



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

REGIONAL DIFFERENCES IN WAGE RELATIONSHIPS

The distribution of the 91 systems studied, by region and size of system, is indicated in table 2. 11/ Table 3 shows the median indexes for selected occupations in each region, the number of systems in which each occupation was represented, and the middle range of variations from the median. 12/ It is important to bear in mind that inter-regional differences in index levels do not reflect corresponding differences in actual wage levels but only differences in wage spread between occupations.

Regional wage patterns may best be observed in comparison with the nation-wide wage scale, since the latter serves as a bench-mark against which variations can be evaluated. In the following analysis, therefore, each regional series is measured against the national series, as indicated in chart 1. Minor differences in index values are disregarded unless they fall into a pattern, the more significant deviations are presumed to be typical of the region.

Wage relationships in Northeastern light and power systems conformed fairly closely to the national pattern. The spread between the lower level of wage rates, occupied by custodial workers and groundmen, and the intermediate level, consisting roughly of the occupations earning less than journeymen linemen, was somewhat narrower in the regional scale. On the other hand, the spread between the intermediate level and the higher-ranking occupations was slightly wider. Thus, in relation to the lowest and highest-paid occupations the intermediate occupations held lower positions in the regional than in the national wage scale. 13/ Notable exceptions were truck drivers and truck-driver groundmen, who occupied markedly better positions in the region. Office occupations, excepting women accounting clerks, were on about the same level regionally and nationally.

11/ The 5 systems situated in the Border States have been excluded from the regional presentation.

12/ With a wide range in indexes and a relatively small number of companies, the median tends to be unstable, that is, subject to significant change merely by the addition or subtraction of one or two system indexes, not necessarily extreme values. This also applies to the limits of the middle range. Consequently, the indexes in the regional tabulation are subject to greater possible errors than the data on a national basis.

13/ Conversely, in relation to the intermediate occupations the others were on relatively better wage levels in the Northeast. The lack of fixed points (the base occupation is, of course, part of the wage scale) makes for such dual interpretations. To give a simple illustration; if the spread between job A and job B is narrower in the regional scale than in the nation-wide scale, it may be due to either job A being relatively higher or job B being relatively lower in the regional scale.

With some exceptions, the wage pattern of Great Lakes light and power systems was almost identical with the nation-wide pattern. Watch engineers and the three custodial jobs held significantly superior positions in the regional as against the national wage scale, whereas class B switchboard operators and stock clerks were rated somewhat lower in the Great Lakes scale. On the whole, office wage rates compared less favorably with non-office rates in the regional picture.

Southern systems showed a pattern that differed significantly from the industry-wide wage scale. Although the ranking of jobs compared closely, the spread between occupational rates was considerably wider in the South than nationally. Typically, the lesser-skilled jobs occupied lower positions, relatively, while the higher-skilled held a comparative advantage. The principal exceptions were watch engineers and district representatives, who were rated lower in the South than nationally. Office occupations were significantly higher in the Southern wage scale.

In the Middle West and Far West the fewer companies and the preponderance of systems with less than 500 employees limited the number of occupations for which indexes could be shown, and tended to weaken the reliability of the median for some occupations. Possibly for this reason the deviations from the national wage scale formed less distinct patterns than was observed in other regions. The wage ladder in the Middle West exhibited less clustering of job rates than did the nation-wide pattern; that is, differentials appeared between occupations shown on the same level in chart 1. On the whole, however, the ranking of occupations and the spread between general wage levels in the Middle West did not differ materially from the industry pattern. Important exceptions included load dispatchers, trouble men, and general utility maintenance men, who were lower in the regional wage scale, and auxiliary equipment operators, rated considerably higher in the Mid-west. Office occupations held relatively better positions in this region than in the industry as a whole.

The picture for the Far West, as contrasted with the nation-wide pattern, presented a closer grouping of wage rates among the higher-skilled occupations. On the other hand, a slightly wider spread was observed at the lower end of the wage ladder. While most office occupations were higher in the regional scale, women accounting clerks and switchboard operators were conspicuously lower.

Table 2.--DISTRIBUTION OF ELECTRIC LIGHT AND POWER SYSTEMS STUDIED, BY REGION AND SIZE OF SYSTEM, JULY 1945

Region 1/	Total systems	Systems with - 501 or more workers	Systems with - 51 to 500 workers
United States	91	51	40
Northeast	26	13	13
Great Lakes	17	11	6
Border States	5	4	1
South	18	15	3
Middle West	13	3	10
Far West	12	5	7

1/ The regions include:
Northeast - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, and Pennsylvania;
Great Lakes-Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin;
Border States - Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia;
South - Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas;
Middle West-Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota;
Far West - Arizona, Colorado, Idaho, Montana, New Mexico, Utah, Wyoming, California, Nevada, Oregon, and Washington.

Table 3.--INDEXES OF WAGE RATES 1/ FOR SELECTED OCCUPATIONS IN THE ELECTRIC LIGHT AND POWER INDUSTRY, BY REGION, JULY 1945

(Wage Rates for Journeymen Linemen = 100)

Occupation, grade and sex	Northeast			Great Lakes			South			Middle West			Far West		
	Number of systems	Median index	Middle range within which one-half of the system indexes fell	Number of systems	Median index	Middle range within which one-half of the system indexes fell	Number of systems	Median index	Middle range within which one-half of the system indexes fell	Number of systems	Median index	Middle range within which one-half of the system indexes fell	Number of systems	Median index	Middle range within which one-half of the system indexes fell
Men															
Maintenance															
Electricians, maintenance	23	96	93 - 100	14	100	96 - 104	17	103	96 - 107	11	102	99 - 104	9	100	100 - 103
Machinists, maintenance	11	100	99 - 100	10	100	90 - 110	11	107	95 - 115	8	103	99 - 110	6	98	95 - 100
Maintenance men, general utility	18	92	88 - 98	7	90	86 - 93	7	87	82 - 98	8	78	75 - 88	6	89	86 - 91
Mechanics, automotive	21	88	85 - 93	14	91	87 - 96	11	88	88 - 92	9	88	83 - 102	8	94	88 - 96
Mechanics, maintenance	12	97	92 - 99	12	95	92 - 97	15	100	94 - 103	9	92	89 - 102	8	95	90 - 100
Production															
Auxiliary equipment operators	17	78	76 - 81	11	81	77 - 92	14	78	72 - 86	7	93	84 - 93	(2/)	(2/)	(2/)
Boiler operators	19	90	84 - 96	14	92	82 - 98	17	90	85 - 98	13	90	85 - 92	9	85	79 - 91
Switchboard operators, class A	18	96	90 - 100	14	96	91 - 105	15	98	95 - 102	11	103	97 - 103	(2/)	(2/)	(2/)
Switchboard operators, class B	12	83	79 - 85	9	80	73 - 91	6	85	77 - 88	7	91	89 - 98	6	90	80 - 98
Turbine operators	14	89	84 - 96	14	91	88 - 103	13	97	88 - 100	9	91	89 - 95	9	92	84 - 98
Watch engineers	14	119	114 - 127	10	121	109 - 144	17	110	110 - 123	10	111	103 - 127	(2/)	(2/)	(2/)
Distribution															
Groundmen	20	68	67 - 69	15	69	64 - 75	17	59	58 - 65	11	73	71 - 77	9	70	66 - 71
Load dispatchers	16	115	111 - 128	11	113	105 - 122	12	117	108 - 139	7	108	99 - 122	8	103	94 - 120
Patrolmen	12	80	72 - 94	9	82	79 - 90	10	84	83 - 90	(2/)	(2/)	(2/)	7	90	88 - 98
Substation operators	21	88	82 - 92	15	84	78 - 93	16	84	76 - 91	6	86	80 - 102	8	88	86 - 91
Troublemen	18	105	100 - 108	14	102	99 - 105	15	103	99 - 105	9	96	88 - 102	7	101	100 - 101
Truck drivers	14	80	73 - 81	8	75	71 - 79	12	69	67 - 75	(2/)	(2/)	(2/)	7	80	74 - 80
Truck driver-groundmen	18	80	75 - 81	11	76	75 - 80	13	73	70 - 78	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)
Installation and servicing															
District representatives	(2/)	(2/)	(2/)	9	98	79 - 100	13	92	87 - 108	10	99	92 - 109	(2/)	(2/)	(2/)
Metermen, class A	26	93	88 - 97	15	96	90 - 98	17	100	96 - 102	11	95	95 - 99	11	98	96 - 101
Metermen, class B	20	82	80 - 88	16	83	80 - 87	14	87	85 - 93	11	85	83 - 88	7	85	78 - 89
Meter readers	26	72	65 - 76	14	72	70 - 80	18	74	69 - 84	11	73	68 - 78	12	72	63 - 73
Servicemen, appliance	19	83	80 - 89	14	89	86 - 94	13	92	88 - 96	7	86	82 - 89	9	94	87 - 98
Stock clerks	23	80	73 - 85	14	74	69 - 80	13	80	69 - 84	11	80	74 - 84	12	82	76 - 87
Custodial															
Guards	13	64	63 - 68	7	75	71 - 76	6	62	60 - 65	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)
Janitors	25	61	56 - 63	14	62	58 - 63	16	49	44 - 52	10	58	55 - 60	11	55	53 - 60
Watchmen	13	65	61 - 68	7	68	64 - 71	10	55	49 - 62	(2/)	(2/)	(2/)	6	57	49 - 71
Women															
Office															
Billing-machine operators	15	58	49 - 60	12	57	52 - 65	14	64	59 - 67	7	62	58 - 72	6	67	65 - 68
Cashiers	17	63	53 - 66	16	61	54 - 71	15	66	59 - 75	13	62	60 - 71	10	62	57 - 64
Clerks, accounting	21	64	51 - 75	12	72	58 - 78	16	79	66 - 86	8	74	67 - 75	9	64	60 - 76
Clerks, general	(2/)	(2/)	(2/)	8	53	49 - 59	11	57	52 - 62	9	56	51 - 62	7	57	51 - 61
Clerks, payroll	18	70	59 - 80	11	61	58 - 66	12	76	66 - 80	11	68	66 - 73	9	72	68 - 81
Clerk-typists	13	54	53 - 57	10	53	51 - 55	10	58	54 - 65	7	58	54 - 62	8	54	52 - 54
Stenographers, class A	17	70	63 - 74	12	68	68 - 72	17	80	74 - 84	(2/)	(2/)	(2/)	10	76	69 - 78
Stenographers, class B	23	54	49 - 59	14	57	53 - 62	16	62	58 - 65	10	63	57 - 65	9	62	62 - 67
Switchboard operators	20	60	56 - 61	12	59	55 - 61	15	58	55 - 69	7	63	60 - 67	6	54	50 - 61

1/ Excluding premium pay for overtime and night work.
2/ Number of systems too small to justify comparisons.

INDUSTRY WAGE STUDIES BULLETINS

The following bulletins, issued as part of the Bureau's Industry Wage Studies Program, are available (in addition to local tabulations described in the Preface).

General

Industry Wage Studies - A Descriptive Statement
Appendix A - Job Descriptions for Wage Studies - Metalworking
Appendix B - Job Descriptions for Wage Studies - Mining
Appendix C - Job Descriptions for Wage Studies - Apparel
Appendix D - Job Descriptions for Wage Studies - Electric Light and Power; Warehousing and Storage

Series 1 - Occupational Wage Relationships

No. 1 Machinery, 1945
2 Machine Tool Accessories, 1945
3 Foundries, 1945
4 Machine Tools, 1945
5 Electric Light and Power, 1945

Series 2 - Wage Structure

No. 1 Machinery, 1945
2 Machine Tool Accessories, 1945
3 Machine Tools, 1945
4 Electroplating and Polishing, 1945
5 Fabricated Structural Steel, 1945
6 Iron and Steel Forgings, 1945
7 Sheet Metal, 1945
8 Foundries, 1945
9 Small Arms, 1945
10 Aircraft Engines and Parts, 1945
11 Power Boilers, 1945
12 Coal Mining, 1945
13 Office Workers - Metalworking, 1945

In preparation

Bakeries, 1945
Communication Equipment, 1945
Cotton Garments, 1945
Department and Clothing Stores, 1945
Electric Generating and Distribution Equipment, 1945
Electric Light and Power, 1945
Footwear, 1945
Industrial Chemicals, 1946
Limited Price Variety Stores, 1945
Power Laundries, 1945
Radios, 1945
Structural Clay Products, 1945
Warehousing, 1945
Wood Furniture, 1945

331.2
Un342o
no.6

OCCUPATIONAL WAGE RELATIONSHIPS

SERIES 1
NO. 6

BAKERIES

1945

THE LIBRARY OF THE
JUN 23 1947
UNIVERSITY OF ILLINOIS

UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

WAGE ANALYSIS BRANCH
INDUSTRY WAGE STUDIES DIVISION
HARRY OBER, CHIEF

331.2
Un3 [illegible]
no 6

PREFACE

The Industry Wage Study program of the Bureau of Labor Statistics is designed to yield a variety of wage data for use in collective bargaining, wage determination, placement, and minimum wage administration.

The results of the Industry Wage Studies are made available in two series of bulletins. Series 1, entitled "Occupational Wage Relationships", provides measures of prevailing wage relationships among key occupations in each industry. Series 2 on "Wage Structure" is devoted to an analysis of actual hourly earnings (straight-time) and the various elements that influence variations in wages, such as location, size of establishment, and method of wage payment. This series also presents information relating to the occupational composition of the industry's labor force and such practices as shift differential payments, paid vacations, paid lunch periods, nonproduction bonuses, insurance, sick leave, and incentive wage systems. Locality tabulations (forms OWR-17 and 18) are available in the regional offices of the Bureau.

233471

OCCUPATIONAL WAGE RELATIONSHIPS IN THE BAKERY INDUSTRY, JULY 1945 1/

INTRODUCTION

Although the bakery industry is marked by a predominance of small shops, bakeries with 8 or more workers employ by far the greater part of the industry's labor force. In the small bakeries, little division of labor is feasible and plant wage structures are relatively simple. As production becomes greater or more diversified, occupational specialization tends to increase, bringing about corresponding differences in wage rates. Thus, for the larger bakeries the wage differentials between occupations constitute an important part of the wage picture.

Industry procedure in wage determination attaches additional importance to the relationships among occupational wage rates. Union agreements in the bakery industry typically set forth standard or minimum rates for specified occupations. 2/ Moreover, many nonunion bakeries also determine a rate or range of rates for each job, rather than basing wage rates upon the characteristics of the individual worker.

It is the object of this study to examine the central tendencies in occupational wage relationships in the bakery industry and the variations attributable in large measure to differences in method of manufacture, unionization, and location. 3/ The method adopted for this purpose is as follows: In 85 large cities or wage areas 4/ the average hourly wage rates for selected bakery occupations were converted to percentages of the average rates paid to male janitors. Thus, for each city a ladder-like pattern of occupational wage levels was developed for all establishments, and, separately, for hand and machine and union and nonunion bakeries. In order to obtain a representative scale for the industry as a whole and for the major subdivisions the percentages computed for each occupation were averaged. The resulting scales indicate the average relationships which occupational wage rates bear to male janitors' earnings and to each other. Since some measure of variation from the average is desirable in order to provide flexibility in the use of the data, the middle range within which half of the city percentages fell is shown for each occupation in the accompanying tables. 5/

1/ Prepared by Joseph W. Bloch.

2/ Piece-rate or production-bonus systems are rarely employed in bakeries.

3/ This report utilizes the extensive wage data obtained through an industry wage survey conducted under the direction of the Bureau's regional wage analysts. Another bulletin, "Wage Structure: Bakeries, 1945", describes the wage structure of the industry in terms of actual hourly earnings. Job descriptions for the bakery industry are available upon request.

4/ A wage-area is defined as a central city and such surrounding territory as constitutes a relatively homogeneous area with respect to wage levels. In this report the terms "wage-area" and "city" are used interchangeably.

5/ In deriving a single figure to express the average relationship between each occupation and male janitors, the median or midpoint in an array of city percentages for the same occupation was selected. The middle range, therefore, covers a fourth of the cities falling immediately below and above the median or average.

NATION-WIDE WAGE RELATIONSHIPS 6/

The bakery industry, as defined for purposes of this study, comprises bakeries having 8 or more workers primarily engaged in producing bread, cakes, pies, and similar perishable commodities in 85 cities. In July 1945, approximately 2000 establishments with 108,000 employees, or roughly two-thirds of the workers in the industry as a whole, came within the scope of this definition. 7/

General Wage Pattern

National wage relationships among the selected occupations are presented by major functional groups, for men and women separately, in table 1. 8/ In chart 1, the occupations are arrayed in descending rank corresponding to their respective positions in the average wage scale. Thus, among men workers the highest position in the wage ladder was held by working foremen in processing departments, who were paid 76 percent more than janitors. At the bottom of the scale, watchmen, hand pan greasers, and hand truckers were clustered around the wage level of janitors. Dough and cake mixers, at approximately the same level, were the highest -paid among precessing workers. Bench hands, numerically the most important occupational group in the industry, were at a level 41 percent above that of janitors. The 4 skilled maintenance occupations were grouped within a narrow range, high in the bakery wage scale. 9/

Men occupied higher positions in the industry's wage scale than women in comparable jobs. In each of the 10 occupations in which both men and women were employed the wage rates paid to men exceeded those paid to women, the advantage ranging from 6 percent for machine pan greasers to 17 percent for dividing-machine operators. 10/ The ranking of occupations for men and women differed in some respects, but there appeared to be no appreciable difference in wage spread between skill levels.

6/ The relationships indicated in this study will not necessarily coincide with the relationships implicit in the actual average earnings data presented in the report "Wage Structure; Bakeries, 1945." The two studies differ significantly in purpose and method. Moreover, coverage was not the same for both reports.

7/ In some cities all bakeries so defined were covered; in most a representative sample was scheduled.

8/ Because of inter-plant differences in employment and job breakdown few of the occupations were found in all cities. In order to provide a rough guide to the relative stability of the percentages and middle ranges, the number of cities reporting each occupation is shown in the accompanying tables.

9/ The approximate differential between any 2 occupations may be computed by using the percentages shown as absolute numbers. For example, the figure for bench hands' helpers is 108; that for bench hands 141. Bench hands, therefore, were paid approximately 30 percent more than their helpers (141/108).

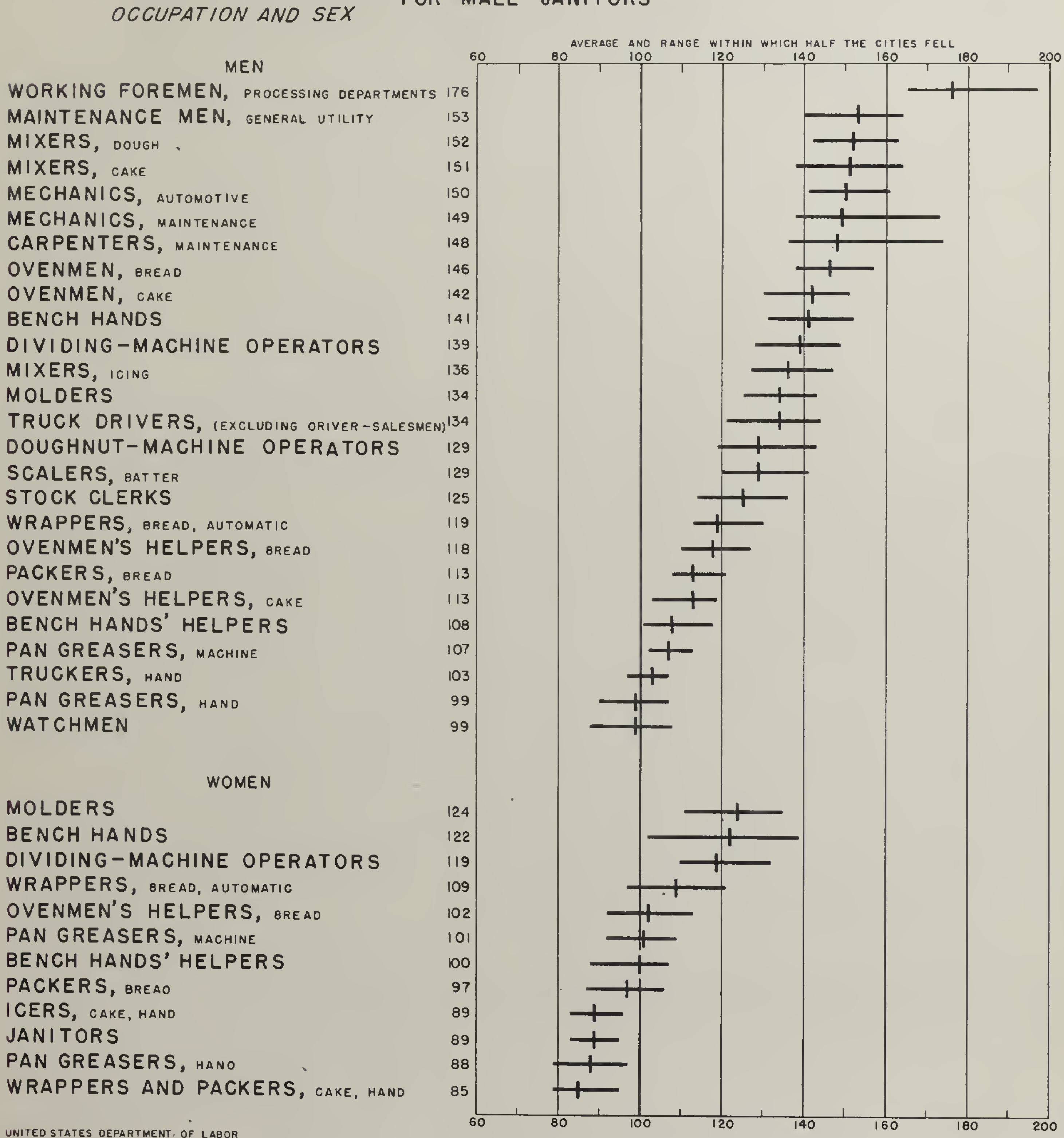
10/ Since city average wage rates were used as the basis for these computations, the sex differentials shown do not necessarily mean that women were paid less than men for comparable jobs in the same bakeries. Rather, they indicate that in the same cities, all bakeries combined, women generally earned less than men for work of a similar character.

CHART I

OCCUPATIONAL WAGE RELATIONSHIPS IN THE BAKERY INDUSTRY IN EIGHTY-FIVE CITIES

JULY 1945

WAGE RATES* FOR SELECTED OCCUPATIONS AS PERCENTAGES OF RATES FOR MALE JANITORS



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

* STRAIGHT-TIME AVERAGE HOURLY EARNINGS

Table 1.--AVERAGE WAGE RATES 1/ FOR SELECTED OCCUPATIONS AS PERCENTAGES OF RATES PAID TO MALE JANITORS, BAKERY INDUSTRY IN 85 CITIES, JULY 1945

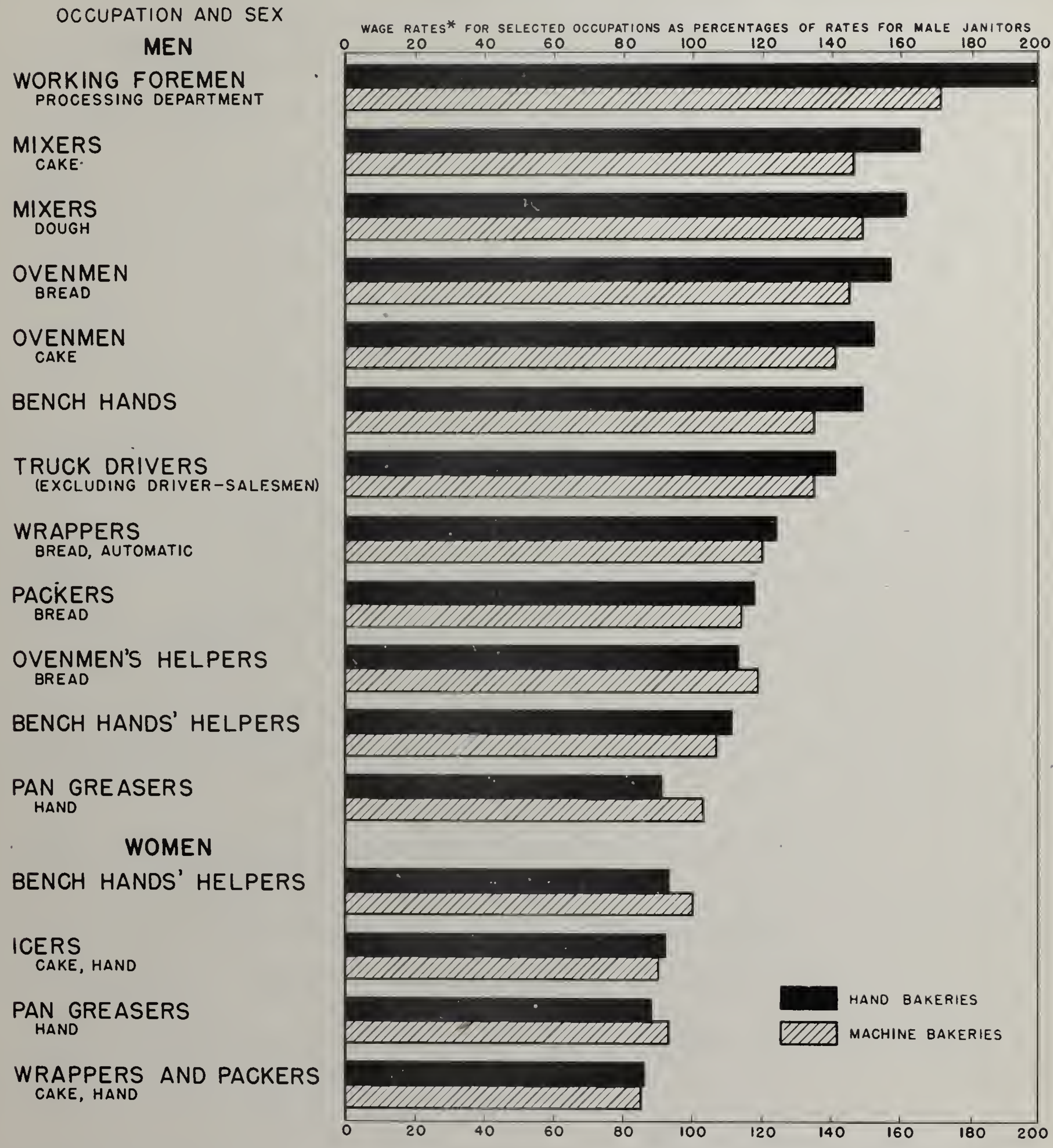
Occupation and sex		Number of cities	Percent of janitors' rates	
			Average	Middle range within which half the cities fell
	Men			
Maintenance:	Carpenters, maintenance	46	148	136 - 174
	Maintenance men, general utility	78	153	140 - 164
	Mechanics, automotive	83	150	141 - 161
	Mechanics, maintenance	47	149	138 - 173
Supervision:	Working foremen, processing departments	85	176	165 - 197
Processing:	Bench hands	81	141	131 - 152
	Bench hands' helpers	75	108	101 - 118
	Dividing-machine operators	85	139	128 - 149
	Doughnut-machine operators	55	129	119 - 143
	Mixers, cake	81	151	138 - 164
	Mixers, dough	85	152	142 - 163
	Mixers, icing	47	136	127 - 147
	Molders	84	134	125 - 143
	Ovenmen, bread	85	146	138 - 157
	Ovenmen's helpers, bread	82	118	110 - 127
	Ovenmen, cake	59	142	130 - 151
	Ovenmen's helpers, cake	40	113	103 - 119
	Packers, bread	84	113	108 - 121
	Pan greasers, hand	74	99	90 - 107
	Pan greasers, machine	72	107	102 - 113
	Scalers, batter	60	129	120 - 141
	Wrappers, bread, automatic	84	119	113 - 130
Other:	Stock clerks	79	125	114 - 136
	Truck drivers (excluding driver-salesmen)	75	134	121 - 144
	Truckers, hand	46	103	97 - 107
	Watchmen	57	99	88 - 108
	Women			
Processing:	Bench hands	39	122	102 - 139
	Bench hands' helpers	55	100	88 - 107
	Dividing-machine operators	33	119	110 - 132
	Icers, cake, hand	77	89	83 - 96
	Molders	42	124	111 - 135
	Ovenmen's helpers, bread	32	102	92 - 113
	Packers, bread	62	97	87 - 106
	Pan greasers, hand	50	88	79 - 97
	Pan greasers, machine	30	101	92 - 109
	Wrappers, bread, automatic	73	109	97 - 121
	Wrappers and packers, cake, hand	74	85	79 - 95
Other:	Janitors	54	89	83 - 95

1/ Excluding premium pay for overtime and night work.

CHART 2

OCCUPATIONAL WAGE RELATIONSHIPS IN HAND AND MACHINE BAKERIES

JULY 1945



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

*STRAIGHT-TIME AVERAGE HOURLY EARNINGS

Table 2.--AVERAGE WAGE RATES 1/ FOR SELECTED OCCUPATIONS IN HAND AND MACHINE BAKERIES AS PERCENTAGES OF RATES PAID TO MALE JANITORS, JULY 1945

Occupation and sex	Hand bakeries			Machine bakeries		
	Number of cities	Percent of janitors' rates		Number of cities	Percent of janitors' rates	
		Average	Middle range within which half the cities fell		Average	Middle range within which half the cities fell
Men						
Maintenance						
Carpenters, maintenance	(2/)	(2/)	(2/)	44	144	136 - 172
Maintenance men, general utility	(2/)	(2/)	(2/)	77	153	142 - 164
Mechanics, automotive	(2/)	(2/)	(2/)	83	149	141 - 163
Mechanics, maintenance	(2/)	(2/)	(2/)	44	147	138 - 173
Supervision						
Working foremen, processing departments	67	200	171 - 204	84	171	160 - 192
Processing						
Bench hands	69	149	136 - 167	72	135	125 - 146
Bench hands' helpers	58	111	103 - 127	57	107	103 - 115
Dividing-machine operators	(2/)	(2/)	(2/)	85	139	128 - 147
Mixers, cake	43	165	144 - 174	75	146	132 - 164
Mixers, dough	53	161	145 - 179	85	149	141 - 162
Mixers, icing	(2/)	(2/)	(2/)	44	136	124 - 149
Molders	(2/)	(2/)	(2/)	83	132	124 - 143
Ovenmen, bread	65	157	142 - 177	85	145	133 - 156
Ovenmen's helpers, bread	34	113	100 - 134	82	119	111 - 129
Ovenmen, cake	29	152	138 - 164	55	141	130 - 151
Ovenmen's helpers, cake	(2/)	(2/)	(2/)	38	111	104 - 119
Packers, bread	29	118	108 - 134	85	114	108 - 119
Pan greasers, hand	44	91	81 - 106	63	103	96 - 108
Pan greasers, machine	(2/)	(2/)	(2/)	72	107	102 - 113
Scalers, batter	(2/)	(2/)	(2/)	60	131	119 - 139
Wrappers, bread, automatic	34	124	110 - 133	84	120	112 - 131
Other						
Stock clerks	(2/)	(2/)	(2/)	79	125	115 - 134
Truck drivers (excluding driver-salesmen)	40	141	125 - 148	69	135	122 - 144
Truckers, hand	(2/)	(2/)	(2/)	45	103	98 - 109
Watchmen	(2/)	(2/)	(2/)	55	100	90 - 108
Women						
Processing						
Bench hands	(2/)	(2/)	(2/)	32	126	112 - 143
Bench hands' helpers	21	93	81 - 104	44	100	90 - 110
Dividing-machine operators	(2/)	(2/)	(2/)	30	121	111 - 130
Icers, cake, hand	50	92	84 - 103	77	90	84 - 98
Molders	(2/)	(2/)	(2/)	42	122	111 - 132
Ovenmen's helpers, bread	(2/)	(2/)	(2/)	30	103	90 - 117
Packers, bread	(2/)	(2/)	(2/)	61	98	88 - 108
Pan greasers, hand	22	88	77 - 96	40	93	82 - 102
Pan greasers, machine	(2/)	(2/)	(2/)	30	100	90 - 112
Wrappers, bread, automatic	(2/)	(2/)	(2/)	73	109	99 - 121
Wrappers and packers, cake, hand	34	86	79 - 89	70	85	81 - 95
Other						
Janitors	(2/)	(2/)	(2/)	59	90	83 - 95

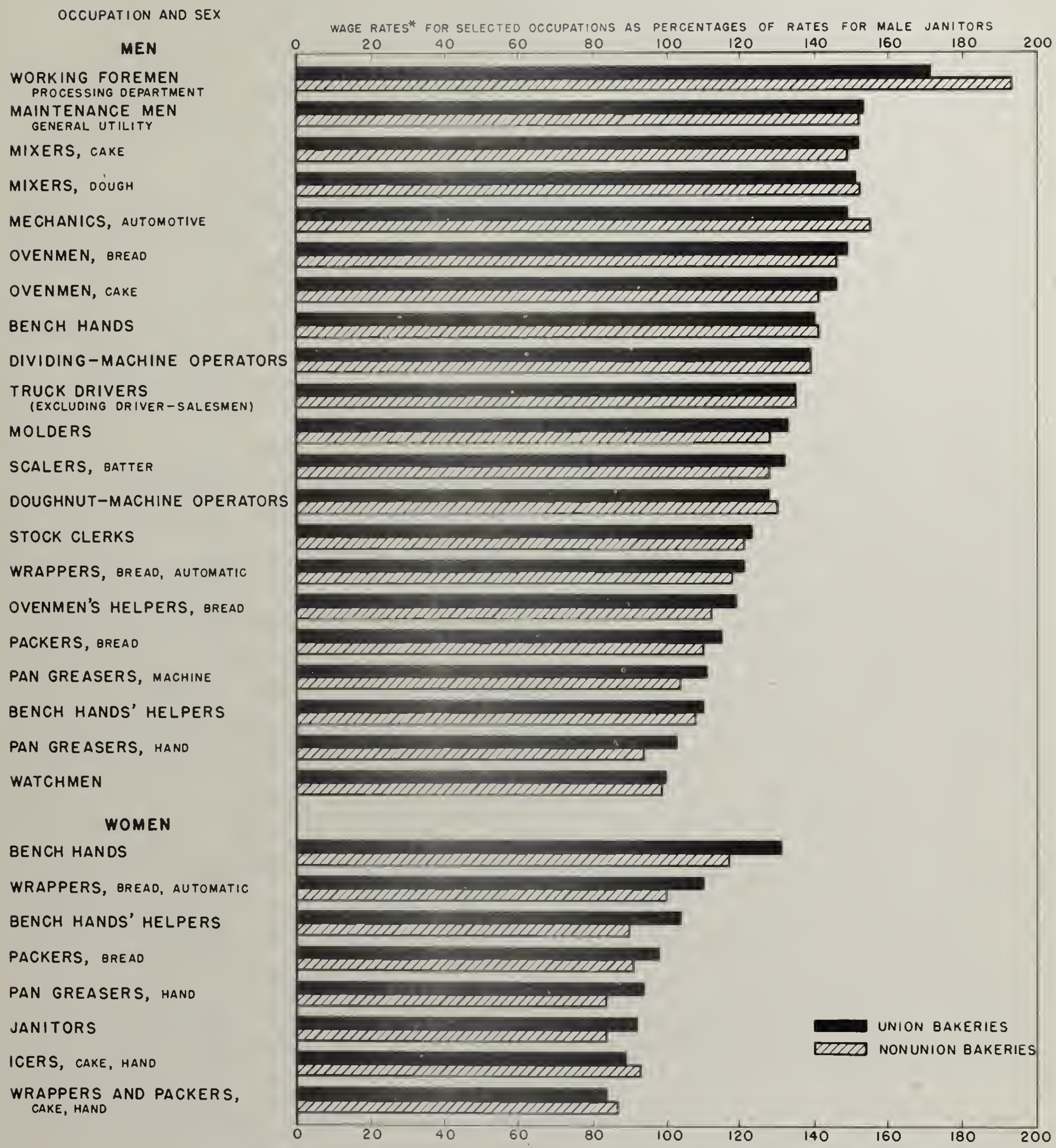
1/ Excluding premium pay for overtime and night work.

2/ Number of cities too small to justify comparisons.

CHART 3

OCCUPATIONAL WAGE RELATIONSHIPS IN UNION AND NONUNION BAKERIES

JULY 1945



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

*STRAIGHT-TIME AVERAGE HOURLY EARNINGS

Table 3.--AVERAGE WAGE RATES 1/ FOR SELECTED OCCUPATIONS IN UNION AND NONUNION BAKERIES AS PERCENTAGES OF RATES PAID TO MALE JANITORS, JULY 1945

Occupation and sex	Union bakeries			Nonunion bakeries		
	Number of cities	Percent of janitors' rates		Number of cities	Percent of janitors' rates	
		Average	Middle range within which half the cities fell		Average	Middle range within which half the cities fell
Men						
Maintenance						
Carpenters, maintenance	38	148	129 - 174	(2/)	(2/)	(2/)
Maintenance men, general utility	67	153	143 - 168	31	152	140 - 167
Mechanics, automotive	75	149	141 - 159	34	155	149 - 167
Mechanics, maintenance	40	147	138 - 174	(2/)	(2/)	(2/)
Supervision						
Working foremen, processing departments	75	171	161 - 187	64	193	174 - 202
Processing						
Bench hands	67	140	130 - 151	62	141	128 - 157
Bench hands' helpers	54	110	103 - 119	55	108	94 - 120
Dividing-machine operators	76	139	130 - 150	38	139	123 - 146
Doughnut-machine operators	40	128	119 - 140	24	130	107 - 145
Mixers, cake	62	152	139 - 163	51	149	137 - 167
Mixers, dough	76	151	142 - 166	61	152	134 - 168
Mixers, icing	38	136	123 - 150	(2/)	(2/)	(2/)
Molders	74	133	123 - 148	41	128	118 - 144
Ovenmen, bread	76	149	136 - 161	68	146	133 - 159
Ovenmen's helpers, bread	71	119	111 - 130	56	112	102 - 123
Ovenmen, cake	46	146	132 - 152	33	141	128 - 157
Ovenmen's helpers, cake	31	119	110 - 123	(2/)	(2/)	(2/)
Packers, bread	74	115	109 - 123	41	110	105 - 124
Pan greasers, hand	54	103	93 - 108	44	94	84 - 103
Pan greasers, machine	65	111	103 - 118	29	104	97 - 108
Scalers, batter	48	132	121 - 141	27	128	122 - 136
Wrappers, bread, automatic	75	121	114 - 132	47	118	115 - 128
Other						
Stock clerks	69	123	114 - 133	31	121	142 - 139
Truck drivers (excluding driver-salesmen)	64	135	125 - 144	40	135	118 - 147
Truckers, hand	39	105	98 - 109	(2/)	(2/)	(2/)
Watchmen	45	100	88 - 108	26	99	88 - 111
Women						
Processing						
Bench hands	22	131	113 - 145	21	117	104 - 164
Bench hands' helpers	33	104	98 - 114	32	90	80 - 98
Dividing-machine operators	24	123	112 - 140	(2/)	(2/)	(2/)
Icers, cake, hand	61	89	83 - 98	55	93	83 - 102
Molders	31	127	114 - 132	(2/)	(2/)	(2/)
Ovenmen's helpers, bread	22	108	96 - 117	(2/)	(2/)	(2/)
Packers, bread	41	98	90 - 108	31	91	81 - 102
Pan greasers, hand	30	94	85 - 98	24	84	75 - 90
Pan greasers, machine	29	100	92 - 112	(2/)	(2/)	(2/)
Wrappers, bread, automatic	61	110	101 - 126	23	100	89 - 114
Wrappers and packers, cake, hand	58	84	79 - 93	42	87	79 - 99
Other						
Janitors	54	92	84 - 96	25	84	78 - 90

1/ Excluding premium pay for overtime and night work.

2/ Number of cities too small to justify comparisons.

Variation by Method of Manufacture

Although there was a high degree of similarity in the ranking of occupations in hand and machine bakeries, 11/ the wage differentials between skill levels were greater in hand bakeries (table 2 and chart 2). This difference is illustrated by comparing the percentage spread between representative occupations at different skill levels. Thus, among men, the wage advantage of bread ovenmen over bread wrappers amounted to 27 percent in hand bakeries as against 21 percent in machine bakeries; bread wrappers, in turn, were paid 24 percent more than janitors in hand bakeries as against a 20 percent spread in machine bakeries.

That skilled workers in hand bakeries were relatively better paid than similar workers in machine bakeries might be attributed in part to the greater versatility generally required of the former. On the whole, however, the wider wage spread found in hand bakeries may have been determined by factors only indirectly related to differences in method of manufacture. One such factor, for example, is employment; hand bakeries employed fewer workers, on the average, than machine bakeries.

Regional differences in wage relationships, discussed later in this report, operated in this instance to understate somewhat the relative wage differentials in hand bakeries. Hand bakeries were represented in fewer Southern cities than were machine bakeries; the South, as indicated below, was an area of comparatively wide wage spread.

Variation by Unionization 12/

The similarity in the ranking of occupations in union and nonunion shops was fairly close (table 3 and chart 3). The most marked deviations in comparative standing were reported for automotive mechanics and women cake icers and wrappers, who appeared higher in the nonunion than in the union wage scale. In differentials between occupations, however, many disparities can be observed. For example, working foremen held a considerably greater advantage over other occupations in nonunion than in union bakeries; men hand pan greasers, on the other hand, were rated higher in the union shops.

The spread among occupational rates was, on the whole, slightly wider in the nonunion than in the union wage pattern. 13/ However, the differentials among union average hourly earnings were narrowed somewhat by lesser union representation among the Southern cities covered.

11/ Almost all bakeries have power-driven equipment of one type or another. The distinction between a hand and a machine bakery is based upon the amount and type of equipment used, particularly in connection with dividing and molding the dough after mixing.

12/ Bakeries were classified as unionized if at least half the plant workers were covered by the terms of union agreements. Hence, some of the selected occupations may include workers who, although working in union plants, were not covered by union wage scales.

13/ In relation to other occupations, janitors were rated higher in nonunion than in union bakeries. This factor, rather than a greater wage spread, accounts for the higher percentages shown for union bakeries in table 3 and chart 3.

REGIONAL DIFFERENCES IN WAGE RELATIONSHIPS 14/

Wage relationships in the Northeast were closely comparable to those in the Great Lakes region with respect to both the ranking of occupations and the differentials between occupations (table 4). Some notable differences, however, were found. Truck drivers were rated considerably higher in Northeastern than in Great Lakes bakeries, earning as much as bread ovenmen in the former region. Dough and cake mixers also held a greater advantage in the Northeastern wage pattern. General utility maintenance men, on the other hand, occupied a relatively better position in the Great Lakes than in the Northeast scale.

Southern bakeries as a whole maintained wage differentials substantially wider than those found in Northern bakeries. This generalization applies to the Southern bakery wage scale in its entirety, but a representative, although simplified, illustration is afforded by contrasting the spread between selected occupations at distinctly different wage levels. Thus, the wage differential favoring dough-mixers over molders amounted to 21 percent in the South, as against 16 percent in the Northeast, 9 percent in the Great Lakes area, and 13 percent in the industry as a whole. Molders, in turn, held a 41 percent advantage over men hand pan greasers in the South, 31 percent in Northeast, 31 percent in Great Lakes, and 35 percent nationally.

Thus, in relation to the wage rates paid to the lower-skilled occupations, higher skilled men in the South held a greater percentage advantage than similar workers held in other regions. Stated in another way, low-skilled workers were at a relative disadvantage in the South. With the exception of janitors, however, women appeared to occupy relatively better positions in the Southern wage scale than elsewhere.

14/ Of the 85 cities covered, 23 were in the Northeast, 19 were in the Great Lakes region, and 23 were in the South. These regions include:

Northeast - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, and Pennsylvania;
Great Lakes - Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin;
South - Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas.

The stability of the regional averages is weakened somewhat by the relatively small number of cities in each region; hence these data are subject to a greater margin of error than the data presented previously. Minor differences in the regional averages, therefore, should be disregarded unless they fall into a fairly distinct pattern. Inter-regional disparities in these figures indicate differences in occupational wage relationships, not in actual wage rates.

INTER-CITY VARIATION IN OCCUPATIONAL WAGE RELATIONSHIPS 15/

That wage relationships vary greatly by locality is amply illustrated by the data for the 6 large cities presented in table 5. Although broad skill levels were generally recognized, the ranking of occupations within these skill groups and the differentials separating occupations showed little inter-city consistency. In ranking and spread among occupations, the wage scales for Los Angeles and Boston bakeries bore the closest resemblance to the Nation-wide pattern. There were, however, some exceptional deviations. For example, average rates for truck drivers and bread ovenmen in Los Angeles, and for bench hands' and bread ovenmen's helpers in Boston, appeared to be out-of-line with rates for other occupations.

Among the other cities, deviations from the national scale were more marked. In New York, for example, key workers in hand bakeries (bread ovenmen, bench hands, and their helpers) and truck drivers were rated considerably higher than in the industry as a whole; this advantage was not shared by such typical machine bakery workers as molders, dividing-machine operators, and general utilit maintenance men. In Philadelphia bakeries, skilled occupations were closer to the lesser-skilled than nationally. Moreover, the average rates for the 6 highest-paid jobs in Philadelphia (excluding working foremen) were clustered within an exceptionally narrow range--137 to 143 percent of janitor's rates. The spread in occupational wage rates was wider in Chicago than in the industry as a whole. Here, however, cake mixers and automatic bread wrappers were paid less in relation to other occupations than nationally, whereas bench hands' helpers were in a better position. The Atlanta average wage scale differed substantially from both the industry-wide and the Southern patterns.

Wage Spread Between Dough Mixers and Janitors by City

As indicated previously, dough mixers were the highest-paid among processing workers in July 1945. Janitors, on the other hand, were close to the bottom of the wage ladder for men workers. The spread between these occupations, therefore, generally set the limits within which other occupations fell. Hence, a listing of the actual average hourly rates for dough mixers and the ratios which these rates bore to janitor's earnings highlights the variation among cities in wage differentials and in wage rates (table 6).

It will be observed that, among the cities covered, there was little correlation between the level of money earnings of dough mixers and the differential between this level and the rate for janitors. For example, dough mixers averaged 88 cents an hour in Memphis as against $1.04 in Detroit, yet the lower rate represented an advantage of 83 percent above janitors' earnings as compared with a spread of 25 percent in Detroit. The highest average rate was reported for dough mixers in Seattle ($1.35 an hour); bakeries in this city, however, also paid the highest rate for janitors, hence the spread was just slightly more than the average for all cities.

15/ Occupational wage data in money terms are shown for 58 cities in the bulletin "Wage Structure: Bakeries, 1945". Union wage scales by city and type of bakery are presented in another Bureau report: "Union Wage Scales: Bakery Trades, 1945". These and other wage data on a locality basis may be obtained from the Bureau upon request.

Table 4.--AVERAGE WAGE RATES 1/ FOR SELECTED OCCUPATIONS AS PERCENTAGES OF RATES PAID TO MALE JANITORS, BAKERY INDUSTRY IN SELECTED REGIONS, JULY 1945

Occupation and sex	Percent of janitors' rates in - Northeast	South	Great Lakes
MEN			
Maintenance			
Maintenance men, general utility	141	159	153
Mechanics, automotive	143	165	147
Mechanics, maintenance	143	(2/)	149
Supervision			
Working foremen, processing departments	172	210	176
Processing			
Bench hands	134	137	141
Bench hands' helpers	104	111	109
Dividing-machine operators	130	146	135
Mixers, cake	147	159	143
Mixers, dough	146	163	142
Molders	126	135	130
Ovenmen, bread	139	152	143
Ovenmens' helpers, bread	115	117	121
Packers, bread	112	114	112
Pan greasers, hand	96	96	100
Pan greasers, machine	104	106	113
Wrappers, bread, automatic	116	131	122
Other			
Stock clerks	119	133	122
Truck drivers (excluding driver-salesmen)	139	133	127
WOMEN			
Processing			
Icers, cake, hand	88	94	90
Wrappers, bread, automatic	103	117	112
Wrappers and packers, cake, hand	82	96	85
Other			
Janitors	90	84	95

1/ Excluding premium pay for overtime and night work.

2/ Number of cities too small to justify comparisons.

Table 5.--AVERAGE WAGE RATES 1/ FOR SELECTED OCCUPATIONS AS PERCENTAGES OF RATES PAID TO MALE JANITORS, BAKERY INDUSTRY IN SELECTED WAGE AREAS, JULY 1945

Occupation and sex	Percent of janitors' rates in--					
	Atlanta, Ga.	Boston, Mass.	Chicago, Ill.	Los Angeles, Calif.	New York, N. Y.	Philadelphia, Pa.
Men						
Maintenance						
Maintenance men, general utility	160	140	155	146	133	139
Mechanics, automotive	152	132	161	150	147	139
Supervision						
Working foremen, processing departments	176	171	183	163	175	149
Processing						
Bench hands	128	132	156	141	173	139
Bench hands' helpers	100	138	134	105	136	103
Dividing-machine operators	146	129	146	130	140	121
Mixers, cake	140	88	144	147	153	143
Mixers, dough	152	147	155	147	159	137
Molders	130	125	121	137	126	128
Ovenmen, bread	146	133	149	153	186	140
Ovenmen's helpers, bread	104	104	131	126	127	123
Packers, bread	112	108	115	111	108	109
Wrappers, bread, automatic	128	111	114	126	114	107
Other						
Truck drivers (excluding driver-salesmen)	(2/)	131	146	151	145	121
Truckers, hand	102	100	103	(2/)	107	103
Women						
Processing						
Icers, cake, hand	94	81	86	88	93	85
Wrappers and packers, cake, hand	98	78	77	88	82	75
Average wage rates of male janitors 1/	$0.50	$0.72	$0.71	$0.76	$0.73	$0.75

1/ 1/ Excluding premium pay for overtime and night work.
2/ Number of cities too small to justify comparisons.

Table 6.--AVERAGE WAGE RATES 1/ FOR DOUGH MIXERS AS PERCENTAGES OF RATES PAID TO MALE JANITORS, BAKERY INDUSTRY IN SELECTED WAGE AREAS, JULY 1945

Wage area	Average wage rates for dough mixers	Percent of janitors' rates	Wage area	Average wage rates for dough mixers	Percent of janitors' rates
St. Louis, Mo.	$1.21	202	Indianapolis, Ind.	$0.91	154
Washington, D. C.	1.19	198	Atlanta, Ga.	.76	152
Kansas City, Mo.	1.13	188	Albany, N. Y.	.96	148
Memphis, Tenn.	.88	183	Scranton, Pa.	.95	148
Houston, Tex.	.91	178	Boston, Mass.	1.06	147
Pittsburgh, Pa.	1.13	177	Los Angeles, Calif.	1.12	147
Baltimore, Md.	.98	175	Rochester, N.Y.	1.00	147
Richmond, Va.	.87	174	Norfolk, Va.	.81	145
Denver, Col.	1.00	172	Des Moines, Iowa	.90	143
Birmingham, Ala.	.86	172	Cleveland, Ohio	1.01	142
San Antonio, Tex.	.84	165	Columbus, Ohio	.91	142
Charlotte, N.C.	.80	163	Minneapolis, Minn.	.95	140
Newark, N.J.	1.14	163	Salt Lake City, Utah	.95	138
New Orleans, La.	.85	163	Philadelphia, Pa.	1.03	137
Cincinnati, Ohio	.99	162	Winston Salem, N.C.	.65	135
Dallas, Tex.	.90	161	Toledo, Ohio	.97	133
New York, N.Y.	1.16	159	Springfield, Mass.	.98	132
Providence, R. I.	1.06	158	Milwaukee, Wis.	.87	130
San Francisco, Cal.	1.32	157	Buffalo, N.Y.	.97	128
Louisville, Ky.	.84	156	Fall River, Mass.	.87	128
Chicago, Ill.	1.10	155	Lowell, Mass.	.72	126
Seattle, Wash.	1.35	155	Detroit, Mich.	1.04	125

1/ Excluding premium pay for overtime and night work.

331.2
Un34
no.7

OCCUPATIONAL WAGE RELATIONSHIPS

SERIES 1
NO. 7

WOOD FURNITURE

1945

THE LIBRARY OF THE
APR 25 1947
UNIVERSITY OF ILLINOIS

UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

WAGE ANALYSIS BRANCH
INDUSTRY WAGE STUDIES DIVISION
HARRY OBER, CHIEF

331.2
Um3 [illegible]
no.7

PREFACE

The Industry Wage Study program of the Bureau of Labor Statistics is designed to yield a variety of wage data for use in collective bargaining, wage determination, placement, and minimum wage administration.

The results of the Industry Wage Studies are made available in two series of bulletins. Series 1, entitled "Occupational Wage Relationships", provides measures of prevailing wage relationships among key occupations in each industry. Series 2 on "Wage Structure" is devoted to an analysis of actual hourly earnings (straight-time) and the various elements that influence variations in wages, such as location, size of establishment, and method of wage payment. This series also presents information relating to the occupational oomposition of the industry's labor force and such practices as shift differential payments, paid vacations, paid lunch periods, nonproduction bonuses, insurance, sick leave, and incentive wage systems. Locality tabulations (forms OWR-17 and 18) are available in the regional offices of the Bureau.

December 1946

OCCUPATIONAL WAGE RELATIONSHIPS IN THE WOOD FURNITURE INDUSTRY, OCTOBER 1945 1/

INTRODUCTION

The widespread practice of establishing a plant rate or range of rates applicable to all workers in the same job classification has focused interest on the differences in occupations and on the relationships among occupational earnings. It is, therefore, the object of this study to examine the central tendencies in occupational wage relationships in the wood furniture industry and the variations attributable in large measure to differences in method of wage payment, location, and unionization.

The method adopted for this purpose is as follows: In a representative group of furniture establishments the average hourly rates 2/ for selected occupations were converted to percentages of the combined rates for men in six unskilled jobs. 3/ Thus, a ladder-like arrangement of occupational wage levels was developed for each plant. To obtain a representative scale for the industry as a whole and for the principal regions, the plant percentages computed for each occupation were averaged. The resulting scales indicate the average relationships which occupational wage rates bear to what may be called the unskilled rate for men and to each other. Because some measure of variation is desirable in order to provide flexibility in the use of the data, the middle range within which half the plant percentages fell is shown for each occupation in the accompanying tables. 4/

1/ Prepared by Joseph W. Bloch. This report utilizes the extensive wage data obtained through an industry wage survey conducted under the direction of the Bureau's regional wage analysts. Another bulletin, "Wage Structure: Wood Furniture, 1945", describes the wage structure of the industry in terms of actual hourly earnings. Job descriptions for the furniture industry are available upon request.

2/ Or average hourly earnings in the case of workers paid on an incentive basis. Premium pay for overtime and night work were excluded from these data.

3/ These jobs are: janitors, machine off-bearers, hand truckers, watchmen, lumber stackers-kiln drying, and lumber stackers-air drying.

4/ In deriving a single figure to express the average wage relationship between each occupation and the unskilled group used as a base, the median or midpoint in an array of plant percentages for the same occupations was selected. The middle range, therefore, covers that fourth of the plants falling immediately below and above the median or average.

NATION-WIDE WAGE RELATIONSHIPS [5]

This study is based on the wage practices of 194 wood furniture establishments, each employing over 100 workers. In October 1945, these plants employed approximately 44,000 workers, or almost 45 percent of the industry's plant labor force. Of the 194 establishments, 160 were primarily engaged in producing wood household (other than upholstered), office, and restaurant furniture. The rest (34) were manufacturing upholstered furniture as their principal product.

Wage Relationships Among Time Workers

A striking feature of the wage scale for workers paid on a time basis, the predominant method of wage payment in the industry, was the clustering of many occupations within a relatively narrow wage bracket (table 1 and chart 1). A range from 8 percent below to 30 percent above the combined rate for the 6 unskilled male occupations covered the occupations engaging a large proportion of the industry's workers. If translated into money terms, the narrowness of this spread is more sharply defined. Thus, assuming a rate of 50 cents an hour for unskilled men, the hourly rates of women off-bearers and men automatic turning-lathe operators who set-up and operate would differ by less than 20 cents. With a base of 70 cents an hour, the difference would be around 26 cents. In the light of this conversion, the differentials separating one occupation from the next higher or lower occupation in the average wage scale appear negligible.

Although the ranking of occupations by relative earning power does not necessarily correspond to a ranking of occupations by skill or training requirements, the importance of these job factors as determinants of wage position is underlined by the data in table 1 and chart 1. Thus, the skilled maintenance occupations ranked high in the furniture wage scale. Men who set-up and operatedboring machines were paid 16 percent more than those who merely operated the machines. [6] The differential between a similar classification of shaper operators amounted to 18 percent.

Men time workers occupied substantially higher positions in plant wage scales than women in similar jobs (chart 2). Wage differentials in favor of men ranged from 5 percent for boring-machine operators (operate only) to approximately 20 percent for drum and belt sanders. In general, the differences were greater among the higher-ranking occupations.

---

[5] The relationships indicated in this report will not necessarily coincide with the relationships implicit in the actual average earnings data presented in the report "Wage Structure: Wood Furniture, 1945." The two studies differ significantly in purpose, method, and coverage.

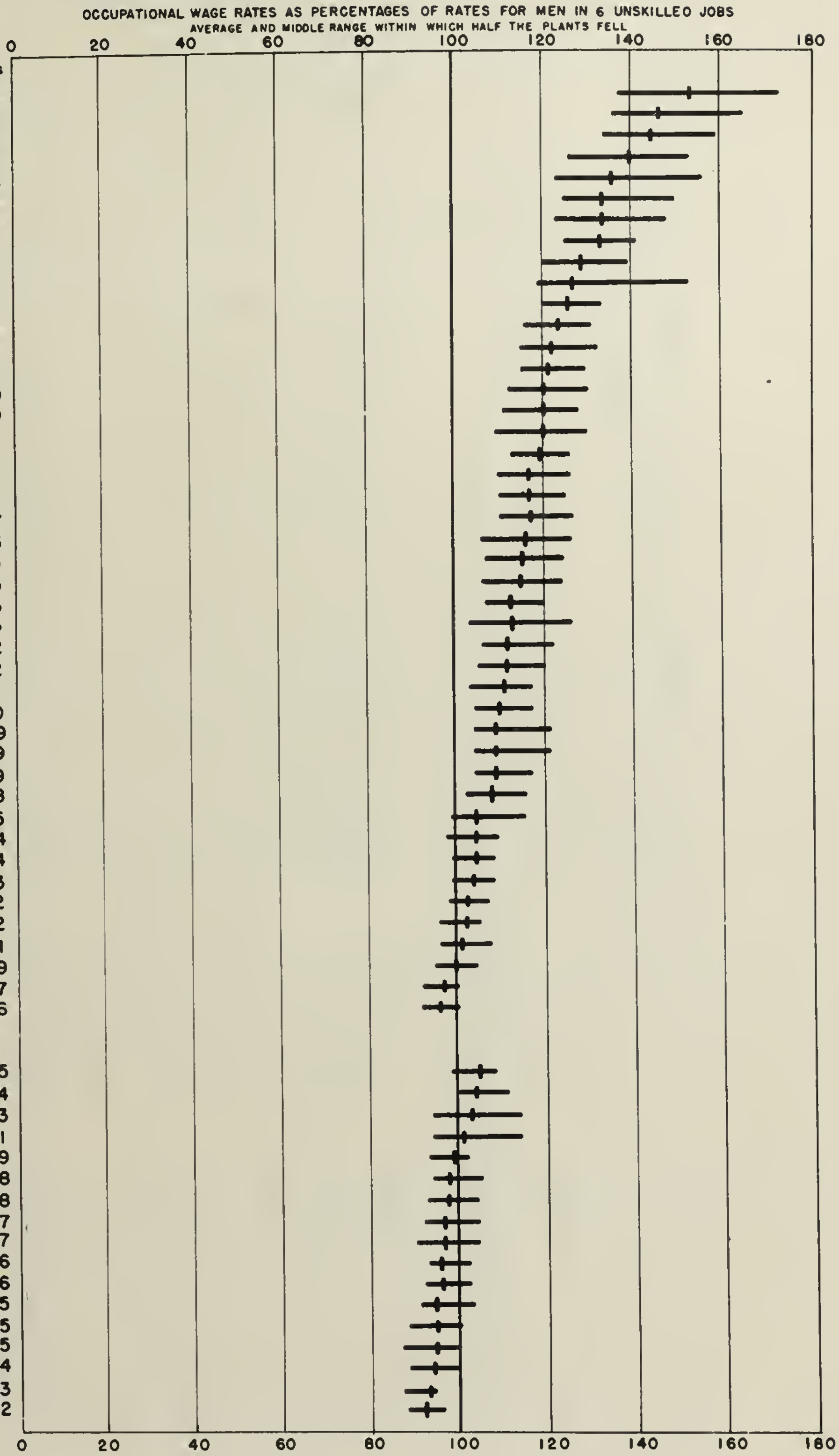
[6] The approximate differential between any 2 occupations may be computed by using the percentages shown as absolute numbers. For example, the figure for boring-machine operators, set-up and operate, is 121; that for boring-machine operators, operate only, 104. The former, therefore, were paid 16 percent more than the latter (121/104).

CHART I

OCCUPATIONAL WAGE RELATIONSHIPS AMONG TIME WORKERS IN WOOD FURNITURE INDUSTRY

OCTOBER 1945

OCCUPATION AND SEX	AVERAGE PECENTAGES
MEN	
ELECTRICIAN, MAINTENANCE	154
WORKING FOREMEN, PROCESSING DEPARTMENTS	147
MECHANICS, MAINTENANCE	145
SPINDLE CARVERS	140
CARPENTERS, MAINTENANCE	136
MAINTENANCE MEN, GENERAL UTILITY	134
SAW FILERS	134
SHAPER OPERATORS, HAND, SET-UP AND OPERATE	133
TURNING-LATHE OPERATORS, AUTOMATIC, SET-UP AND OPERATE	129
KILN OPERATORS	127
CASE FITTERS	126
PAINTERS, FINISH	124
INSPECTORS, FINAL	122
BORING-MACHINE OPERATORS, SET-UP AND OPERATE	121
CUT-OFF-SAW OPERATORS,	120
TABLE FITTERS	120
BED FITTERS	120
PLANER OPERATORS, SET-UP AND OPERATE	119
CASE-CLAMP MEN	117
DRUM SANDERS	117
RIP-SAW OPERATORS	117
FRAME MAKERS	116
BELT SANDERS	115
TRUCK DRIVERS	115
PAINTERS, ROUGH	113
SHAPER OPERATORS, HAND, OPERATE ONLY	113
VENEER TAPERS, MACHINE	112
END MAKERS	112
VENEER-PRESS OPERATORS	111
RUBBER, MACHINE	110
DRAWER MAKERS	109
CHAIR MAKERS	109
GLUERS, ROUGH STOCK	109
PACKERS, FURNITURE	108
RUBBERS, HAND	105
BORING-MACHINE OPERATORS, OPERATE ONLY	104
SANDERS, HAND	104
LUMBER STACKERS, KILN-DRYING	103
LUMBER STACKERS, AIR-DRYING	102
WATCHMEN	102
WRAPPERS, FURNITURE	101
TRUCKERS, HAND	99
OFF-BEARERS, MACHINE	97
JANITORS	96
WOMEN	
INSPECTORS, FINAL	105
PAINTERS, ROUGH	104
SEWERS, COVER	103
CUTTERS, COVER	101
BORING-MACHINE OPERATORS, OPERATE ONLY	99
DRAWER MAKERS	98
END MAKERS	98
VENEER TAPERS, MACHINE	97
DRUM SANDERS	97
BELT SANDERS	96
GLUERS, ROUGH STOCK	96
CHAIR MAKERS	95
WRAPPERS, FURNITURE	95
PACKERS, FURNITURE	95
SANDERS, HAND	94
RUBBERS, HAND	93
OFF-BEARERS, MACHINE	92



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Table 1.--OCCUPATIONAL WAGE RATES FOR TIME AND INCENTIVE WORKERS AS PERCENTAGES OF RATES FOR MEN IN 6 UNSKILLED JOBS, 1/
WOOD FURNITURE INDUSTRY, OCTOBER 1945

Occupation and sex	Time workers			Incentive workers		
	Number of plants	Percent of rates for unskilled men		Number of plants	Percent of rates for unskilled men	
		Average	Middle range within which half of the plants fell		Average	Middle range within which half of the plants fell
Men						
Maintenance						
Carpenters, maintenance	62	136	123 - 156	(2/)	(2/)	(2/)
Electricians, maintenance	50	154	137 - 173	-	-	-
Maintenance men, general utility	128	134	125 - 150	-	-	-
Mechanics, maintenance	60	145	134 - 159	(2/)	(2/)	(2/)
Saw filers	98	134	123 - 148	(2/)	(2/)	(2/)
Supervision						
Working foremen, processing departments	120	147	136 - 165	(2/)	(2/)	(2/)
Lumber seasoning						
Kiln operators	49	127	119 - 153	(2/)	(2/)	(2/)
Lumber stackers, air-drying	74	102	98 - 107	(2/)	(2/)	(2/)
Lumber stackers, kiln-drying	114	103	99 - 108	(2/)	(2/)	(2/)
Woodworking						
Belt sanders	132	115	107 - 124	54	146	125 - 159
Boring-machine operators, operate only	38	104	98 - 109	(2/)	(2/)	(2/)
Boring-machine operators, set-up and operate	107	121	115 - 129	42	151	132 - 171
Cut-off-saw operators	147	120	112 - 130	41	132	117 - 151
Drum sanders	124	117	110 - 125	48	141	119 - 166
Gluers, rough stock	124	109	104 - 117	52	125	115 - 150
Off-bearers, machine	137	97	92 - 100	43	107	100 - 114
Planer operators, set-up and operate	120	119	113 - 126	31	140	122 - 150
Rip-saw operators	146	117	110 - 127	45	129	119 - 148
Shaper operators, hand, operate only	39	113	103 - 126	(2/)	(2/)	(2/)
Shaper operators, hand, set-up and operate	128	133	125 - 141	44	156	126 - 167
Spindle carvers	56	140	126 - 153	(2/)	(2/)	(2/)
Turning-lathe operators, automatic, set-up and operate	72	129	120 - 139	24	156	138 - 167
Veneering						
Veneer-press operators	58	111	103 - 117	(2/)	(2/)	(2/)
Veneer tapers, machine	43	112	106 - 122	(2/)	(2/)	(2/)
Assembling						
Bed fitters	53	120	109 - 130	(2/)	(2/)	(2/)
Case-clamp men	77	117	110 - 126	41	156	142 - 181
Case fitters	67	126	120 - 133	26	154	132 - 174
Chair makers	55	109	104 - 121	28	142	127 - 152
Drawer makers	52	109	104 - 121	23	146	127 - 159
End makers	47	112	105 - 120	(2/)	(2/)	(2/)
Frame makers	64	116	106 - 126	27	139	112 - 162
Table fitters	33	120	111 - 128	(2/)	(2/)	(2/)
Finishing and rubbing						
Painters, finish	101	124	116 - 131	39	159	144 - 192
Painters, rough	89	113	107 - 120	43	145	132 - 154
Rubbers, hand	76	105	99 - 115	42	145	123 - 163
Rubbers, machine	51	110	104 - 117	(2/)	(2/)	(2/)
Sanders, hand	100	104	99 - 108	56	139	119 - 167
Upholstering						
Upholsterers, chairs	(2/)	(2/)	(2/)	38	174	146 - 193
Packing						
Packers, furniture	114	108	102 - 116	48	140	126 - 158
Wrappers, furniture	48	101	96 - 107	(2/)	(2/)	(2/)
Other						
Inspectors, final	114	122	115 - 132	(2/)	(2/)	(2/)
Janitors	149	96	92 - 100	(2/)	(2/)	(2/)
Truck drivers	134	115	106 - 124	(2/)	(2/)	(2/)
Truckers, hand	92	99	95 - 103	(2/)	(2/)	(2/)
Watchmen	161	102	96 - 105	(2/)	(2/)	(2/)
Women						
Woodworking						
Belt sanders	31	96	93 - 102	(2/)	(2/)	(2/)
Boring-machine operators, operate only	41	99	93 - 102	(2/)	(2/)	(2/)
Drum sanders	25	97	90 - 104	(2/)	(2/)	(2/)
Gluers, rough stock	22	96	92 - 102	(2/)	(2/)	(2/)
Off-bearers, machine	97	92	88 - 96	21	100	90 - 108
Veneering						
Veneer tapers, machine	32	97	92 - 104	(2/)	(2/)	(2/)
Assembling						
Chair makers	22	95	91 - 103	(2/)	(2/)	(2/)
Drawer makers	29	98	94 - 105	(2/)	(2/)	(2/)
End makers	26	98	93 - 104	(2/)	(2/)	(2/)
Finishing and rubbing						
Painters, rough	43	104	100 - 111	(2/)	(2/)	(2/)
Rubbers, hand	38	93	87 - 94	(2/)	(2/)	(2/)
Sanders, hand	89	94	88 - 99	46	116	103 - 140
Upholstering						
Cutters, cover	36	101	94 - 114	(2/)	(2/)	(2/)
Sewers, cover	39	103	94 - 114	30	138	120 - 158
Packing						
Packers, furniture	35	95	87 - 100	(2/)	(2/)	(2/)
Wrappers, furniture	50	95	88 - 100	(2/)	(2/)	(2/)
Other						
Inspectors, final	26	105	98 - 108	(2/)	(2/)	(2/)

1/ Wage rates are straight-time hourly earnings (excluding premium pay for overtime and night work). The unskilled jobs include lumber stackers (air-drying), lumber stackers (kiln-drying), machine off-bearers, janitors, hand truckers, and watchmen.

2/ Number of plants or workers too small to justify comparisons.

Significant, also, is the fact that the wage differentials separating men workers were wider than those among women. There appeared to be little recognition of skill differences among the latter; wage rates for the jobs in which women were employed tended to cluster between 92 and 105 percent of the unskilled male rate, whereas the range for men in the same jobs was from 97 to 122 percent.

Merit and seniority increases undoubtedly contributed toward establishing a differential between men and women workers. Although women constituted about 20 percent of the industry's labor force in October 1945, for most women work experience in furniture plants did not precede the war period. In February 1941, for example, only 6 percent of the workers were women. Moreover, it is likely that the turnover rate was higher among women than among men. Nevertheless, it is questionable whether the wage differentials shown in chart 2 can be attributed entirely to differences in length of service, quality of work, or similar factors. 7/

Influence of Incentive Pay on Wage Relationships

Wage payment based upon individual productivity had fairly wide application in the furniture industry in October 1945. Approximately 40 percent of the 194 establishments studied had more than a fourth of plant personnel on an incentive basis; another 20 percent of the plants applied an incentive plan to one or more occupations. Piece rates and individual production bonuses were the most common incentive devices used. Of the occupations covered, woodworking and finishing jobs appeared to be most adaptable to this type of wage payment. 8/

The influence of incentive pay on the wage levels of those occupations to which it was applied is graphically demonstrated in chart 3. In each occupation incentive workers earned more than time workers, the differences ranging from 9 percent for women off-bearers to 38 percent for men hand rubbers. It is noteworthy that the wage advantages of incentive over time workers were greater in hand or portable tool operations than in operations using fixed machines. For instance, such incentive groups as case-clamp men, drawer and chair makers, hand sanders and rubbers, and

---

7/ Although there were plants in which certain occupations were assigned to women only, for the most part this was not a generally established practice. Moreover, differences in plant size and wage levels, as between plants that employed women in these selected occupations and those that did not, had a negligible influence upon these data.

8/ Suite upholstering (complete or section work) was also frequently placed on an incentive pay basis. Although important in numbers, suite upholsterers, either on a time or incentive pay basis, were found in relatively few of the plants covered. The exceptionally wide range in their earnings, combined with the low number of plants, weakened the reliability of an average relationship; hence, data for these workers are not shown in the accompanying tables.

packers earned at least 30 percent more than time workers in the same jobs. On the other hand, operators on the shaping machines, turning lathes, cut-off saws, rip saws, and planing machines earned from about 10 to 20 percent more on an incentive than on a time basis. Presumably, hand operations allowed greater scope for individual control of production than could be obtained by workers on machines. 9/

As a consequence of the differences among occupations in the effects of incentive wage payment, the wage levels of most of the incentive occupations clustered within a remarkably narrow range. Of the 23 occupations listed in chart 3, 17 fell within 138 and 159 percent of the unskilled rate. The corresponding range for time workers was from 103 to 133 percent of the base rate. Thus, the differential between the high and the low in this group of occupations amounted to 15 percent for incentive workers as against 29 percent for time workers.

The earning power of speed and dexterity is emphasized by these data. Jobs such as chair and drawer making, which on a time basis were paid about 10 percent more than the unskilled rate, became highly paid jobs under wage incentives, ranking among the skilled maintenance occupations in the average plant scale. Differentials based on speed and dexterity are, however, less stable than those based on skill. Worker productivity, upon which the level of incentive earnings depends, is sensitive to non-wage factors such as the amount of work at hand and various psychological forces.

It is to be expected that inter-plant variation in relative wage levels, as measured in part by the middle range of percentages, would be greater for incentive workers than for time workers (table 1). 10/ In an occupation such as drum sanding, for example, incentive workers in half of the plants averaged from 119 to 166 percent of the combined rate for unskilled men. The middle range for drum sanders on a time basis was 110 to 125 percent. In both cases, of course, the full range covering all plants was considerably wider.

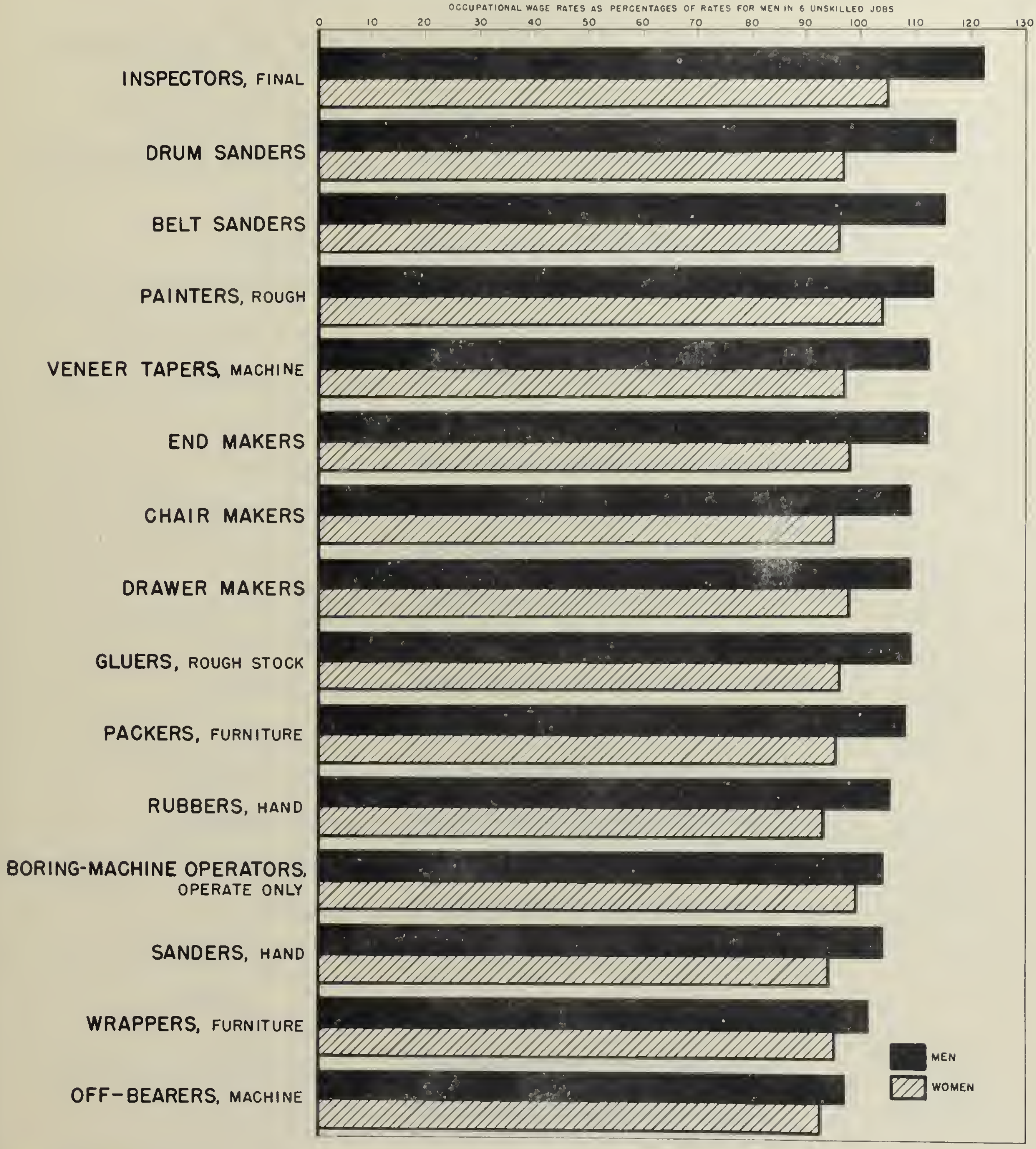
9/ The latter must contend not only with limited machine speed but with the personal hazard and damage to stock involved in sustaining the additional effort needed to bring earnings to a higher level.

10/ Piece rates differ from plant to plant, as do the units upon which the rates are based. Moreover, there is a wide range in individual capability, plant lay-out and flow of materials, amount of work, and other factors directly affecting incentive earnings.

CHART 2

WAGE RELATIONSHIPS AMONG MEN AND WOMEN TIME WORKERS IN COMPARABLE OCCUPATIONS, WOOD FURNITURE INDUSTRY

OCTOBER 1945

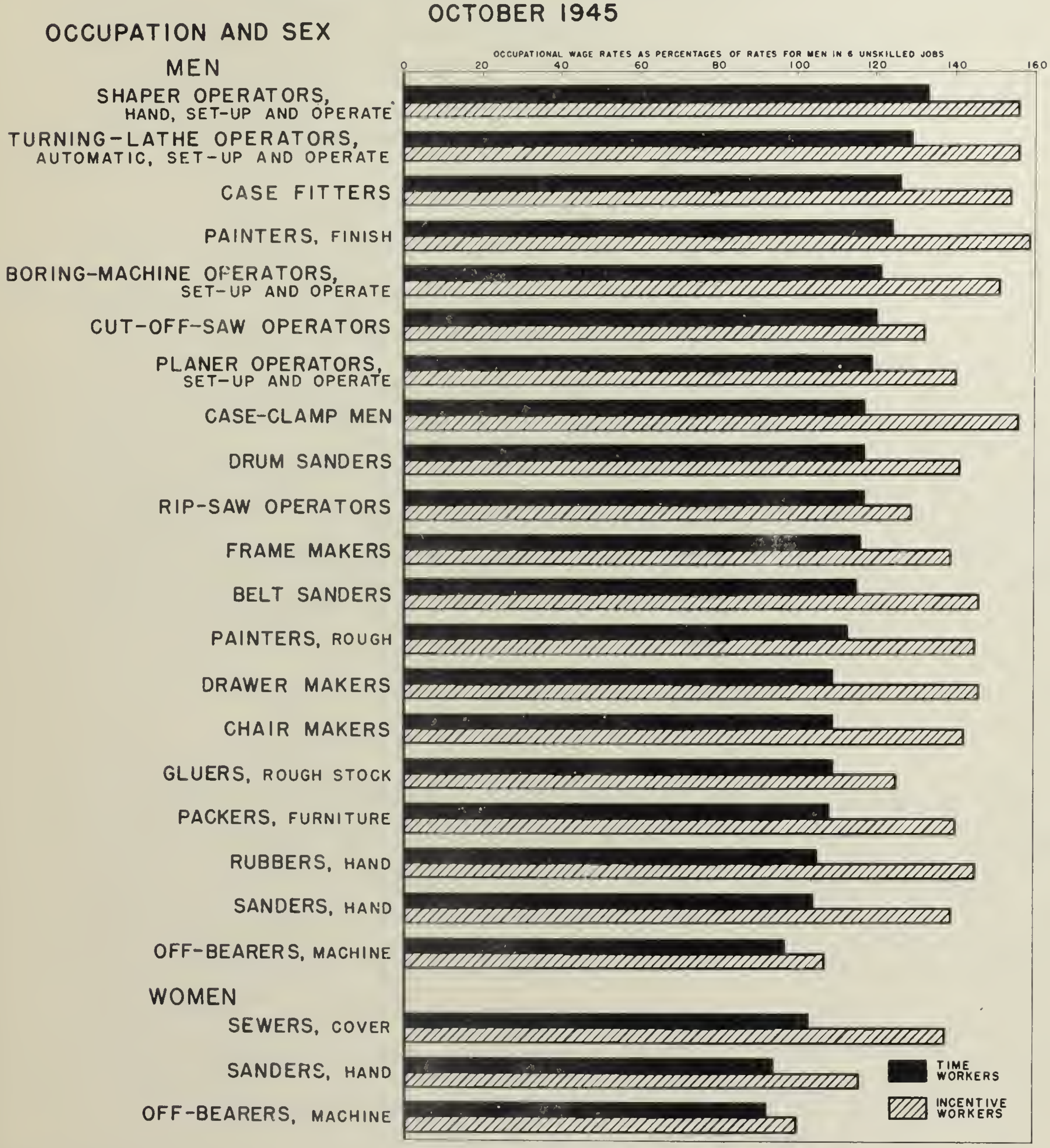


UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

CHART 3

INFLUENCE OF METHOD OF WAGE PAYMENT ON OCCUPATIONAL WAGE RELATIONSHIPS, WOOD FURNITURE INDUSTRY

OCTOBER 1945



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

REGIONAL DIFFERENCES IN WAGE RELATIONSHIPS 11/

In 1945 the general level of wages in Southern furniture plants was substantially lower than that in Northern plants. However, the ranking of occupations by earning power and the differentials among occupations or skill levels, percentagewise rather than in terms of cents-per-hour, are not dependent upon the level of wages. As chart 4 shows, Northern and Southern wage scales maintained a high degree of similarity in the ranking of occupations among the high-wage and low-wage workers, but among the middle group of occupations the variance was considerable. 12/ In the latter group, notable differences in position can be observed for case-clamp men, truck drivers, and packers, who appeared at lower levels in the Southern than in the Northern scale, and cut-off-saw operators and drum and belt sanders, who occupied relatively higher positions in the South.

Viewing the two regional scales in their entirety, the significant differences become more readily apparent. Starting from the lower end of the wage scale, the spread between the low-paid and the middle group of occupations was wider in the North than in the South. On the other hand, the spread between the middle group and the high-wage group was wider in the South. As between the high- and low-paid groups, the differential was only slightly greater in the South than in the North. A simplified but representative illustration of the difference in Northern and Southern wage relationships is afforded by contrasting the regional spread between selected occupations at distinctly different wage levels. Thus, the wage advantage of general utility maintenance men over men rough painters amounted to 15 percent in the North as against 21 percent in the South. Illustrating the difference in spread at the lower levels, the latter occupation was paid 26 percent more than women off-bearers in the North and only 20 percent more in the South.

11/ To determine characteristic regional wage relationships with a maximum of reliability, a broad geographic base was necessary. Consequently, for this study the industry was divided into two regions--North and South. The South consists of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, Arkansas, Louisiana, Oklahoma, and Texas. The North comprises all other States. Of the 194 large establishments covered in the present study, 102 were in the North and 92 in the South.

12/ Differences between Northern and Southern wage relationships can best be visualized in terms of the relationships between rather broad groups of occupations. To facilitate this analysis, it is necessary to use such relative terms as low-wage, medium-wage, and high-wage groups. In the Southern wage scale, the range of percentages included in each of these groups would be 93 to 102, 106 to 123, and 132 and over, respectively.

The following generalizations, therefore, appear to be justified: (1) In relation to the two ends of the wage scale, the middle group of occupations, accounting for the largest proportion of the workers, were rated higher in the North than in the South. This comparative advantage for the Middle group in the North would be still greater if incentive earnings were combined with time wages. In Northern plants, the differentials between time and incentive workers were much the same as those previously indicated for the industry as a whole (table 2). 13/ (2) In relation to other occupations, particularly to the middle group, the high-wage occupations were in comparatively better positions in the Southern than in the Northern scale. And (3) in relation to other occupations, low-wage jobs occupied higher standing in the South, that is, they were closer to the wage levels of the middle group. A hypothetical illustration might clarify this significant feature of the Southern wage scale: If the differentials obtaining in the North were applied to Southern wage rates, it would necessitate either raising the wage rates of the large middle group of occupations or reducing the wage rates of the low-paid jobs.

WAGE RELATIONSHIPS IN UNION AND NONUNION ESTABLISHMENTS

Union and nonunion establishments were represented in almost equal number in the coverage of this study (98 and 96 establishments, respectively). 14/ Regional distribution, however, differed substantially; two-thirds of the nonunion plants and only a fourth of the union plants were situated in the South. Nevertheless, a general comparison between union and nonunion wage relationships among time workers revealed no appreciable difference in spread between skill levels (table 3). Moreover, there was, on the whole, a high degree of similarity in the ranking of occupations in the average union and nonunion wage scales. Many of the disparities in ranking and in differentials between particular occupations were of little consequence if translated into actual money earnings.

The wage position of incentive workers in union plants was considerably higher than that of time workers in similar occupations (table 3). 15/ The characteristics of time and incentive wage relationships in union plants were much the same as those for all establishments, as illustrated in chart 3.

13/ Incentive systems were found in too few Southern plants to justify comparison.

14/ Establishments were classified as unionized if more than half of the plant workers were covered by terms of union agreements.

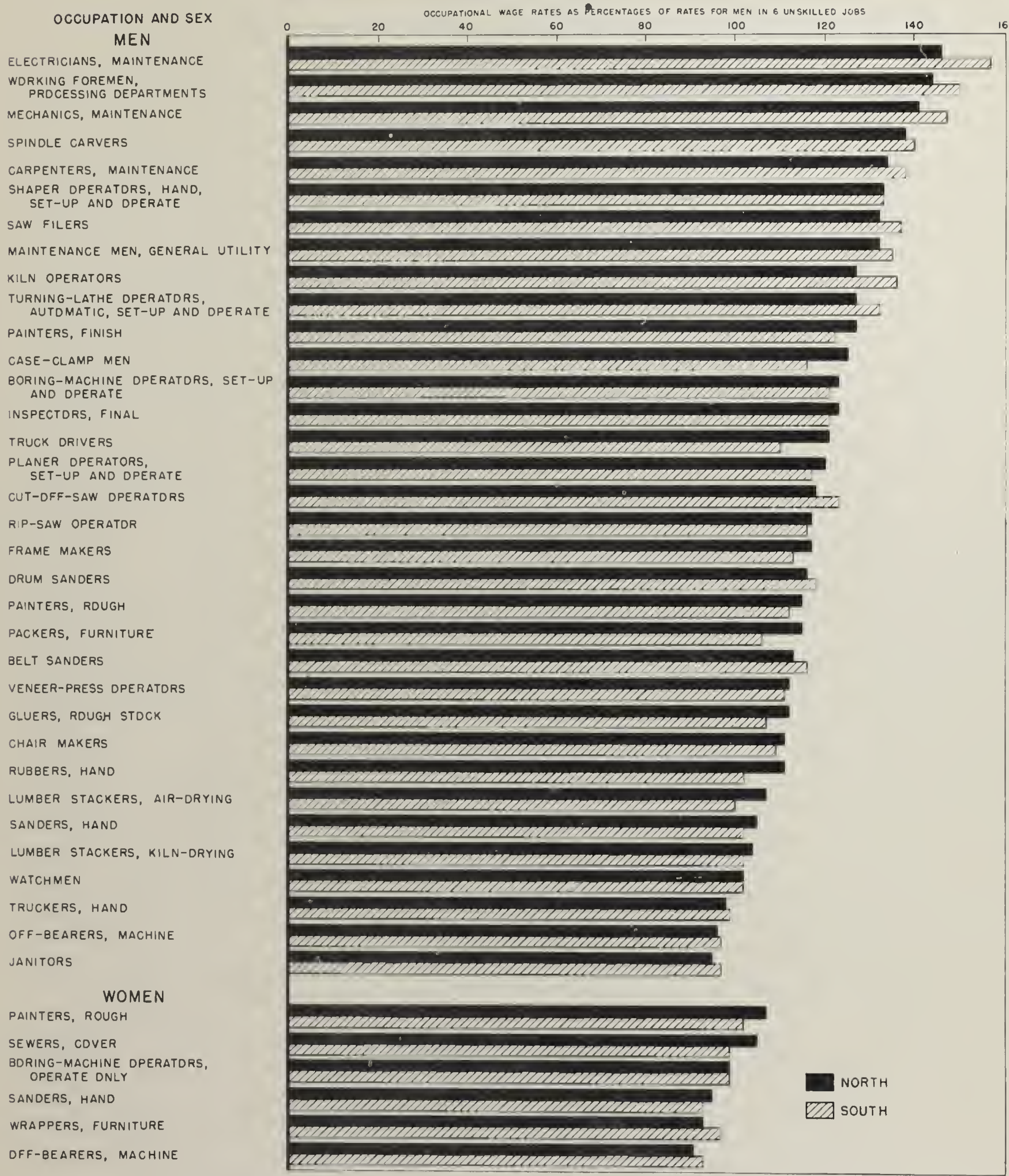
15/ Incentive wage systems were not found in a sufficient number of nonunion establishments to justify comparisons.

CHART 4

REGIONAL DIFFERENCES IN OCCUPATIONAL WAGE RELATIONSHIPS AMONG TIME WORKERS

WOOD FURNITURE INDUSTRY

OCTOBER 1945



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Table 2.--OCCUPATIONAL WAGE RATES IN NORTH AND SOUTH AS PERCENTAGES OF RATES FOR MEN IN 6 UNSKILLED JOBS, 1/ WOOD FURNITURE INDUSTRY, OCTOBER 1945

Occupation and sex	North						South		
	Time workers			Incentive workers			Time workers		
	Number of plants	Percent of rates for unskilled men		Number of plants	Percent of rates for unskilled men		Number of plants	Percent of rates for unskilled men	
		Average	Middle range within which half of the plants fell		Average	Middle range within which half of the plants fell		Average	Middle range within which half of the plants fell
Men									
Maintenance									
Carpenters, maintenance	26	134	123 - 158	-	-	-	36	138	130 - 153
Electricians, maintenance	23	146	136 - 165	-	-	-	27	157	144 - 173
Maintenance men, general utility	61	132	118 - 146	-	-	-	67	135	130 - 156
Mechanics, maintenance	27	141	134 - 157	(2/)	(2/)	(2/)	33	147	134 - 160
Saw filers	51	132	124 - 140	-	-	-	47	137	124 - 152
Supervision									
Working foremen, processing departments	67	144	136 - 157	(2/)	(2/)	(2/)	53	150	137 - 169
Lumber seasoning									
Kiln operators	23	127	121 - 137	-	-	-	26	136	118 - 161
Lumber stackers, air-drying	29	107	102 - 110	(2/)	(2/)	(2/)	45	100	97 - 104
Lumber stackers, kiln-drying	52	104	101 - 111	(2/)	(2/)	(2/)	62	102	99 - 105
Woodworking									
Belt sanders	61	113	108 - 124	41	140	126 - 156	71	116	107 - 122
Boring-machine operators, operate only	21	103	98 - 112	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)
Boring-machine operators, set-up and operate	44	123	116 - 132	33	148	135 - 164	63	121	115 - 128
Cut-off-saw operators	68	118	111 - 127	30	131	117 - 151	79	123	113 - 134
Drum sanders	52	116	110 - 124	31	145	130 - 158	72	118	111 - 125
Gluers, rough stock	58	112	104 - 125	38	126	115 - 157	66	107	104 - 113
Off-bearers, machine	60	96	91 - 99	32	107	99 - 114	77	97	95 - 101
Planer operators, set-up and operate	52	120	115 - 128	24	141	126 - 153	58	117	111 - 124
Rip-saw operators	69	117	111 - 122	31	130	119 - 149	77	116	110 - 127
Shaper operators, hand, operate only	18	120	102 - 129	(2/)	(2/)	(2/)	21	112	103 - 121
Shaper operators, hand, set-up and operate	62	133	122 - 142	32	155	126 - 167	66	133	125 - 139
Spindle carvers	21	138	126 - 148	(2/)	(2/)	(2/)	35	140	128 - 153
Turning-lathe operators, automatic, set-up and operate	26	127	122 - 139	18	158	138 - 169	46	132	118 - 139
Veneering									
Veneer-press operators	26	112	104 - 117	(2/)	(2/)	(2/)	32	111	103 - 117
Veneer tapers, machine	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	26	112	104 - 117
Assembling									
Bed fitters	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	40	118	109 - 128
Case-clamp men	24	125	110 - 133	31	158	143 - 175	53	116	110 - 123
Case fitters	(2/)	(2/)	(2/)	19	151	137 - 162	50	128	120 - 135
Chair makers	22	111	101 - 124	(2/)	(2/)	(2/)	33	109	104 - 119
Drawer makers	(2/)	(2/)	(2/)	19	142	127 - 152	40	105	103 - 114
End makers	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	38	112	106 - 121
Frame makers	19	117	116 - 127	18	142	112 - 163	45	113	105 - 125
Table fitters	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	24	117	109 - 125
Finishing and rubbing									
Painters, finish	35	127	117 - 148	24	161	148 - 192	66	122	114 - 131
Painters, rough	40	115	109 - 126	35	145	133 - 153	49	112	104 - 118
Rubbers, hand	31	111	103 - 123	31	143	123 - 157	45	102	98 - 108
Rubbers, machine	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	35	110	106 - 117
Sanders, hand	33	105	100 - 114	42	139	117 - 158	67	102	98 - 106
Packing									
Packers, furniture	51	115	104 - 122	39	143	133 - 159	63	106	102 - 110
Wrappers, furniture	13	99	95 - 110	(2/)	(2/)	(2/)	29	101	98 - 106
Other									
Inspectors, final	51	123	115 - 130	(2/)	(2/)	(2/)	63	121	115 - 136
Janitors	74	95	90 - 99	(2/)	(2/)	(2/)	75	97	93 - 100
Truck drivers	61	121	112 - 132	(2/)	(2/)	(2/)	73	110	103 - 116
Truckers, hand	44	98	93 - 102	(2/)	(2/)	(2/)	48	99	97 - 103
Watchmen	80	102	95 - 107	-	-	-	81	102	97 - 104
Women									
Woodworking									
Belt sanders	17	99	95 - 110	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)
Boring-machine operators, operate only	21	99	91 - 102	(2/)	(2/)	(2/)	20	99	96 - 102
Off-bearers, machine	44	91	87 - 95	(2/)	(2/)	(2/)	53	93	88 - 97
Veneering									
Veneer tapers, machine	20	96	89 - 104	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)
Assembling									
Chair makers	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	16	94	91 - 101
Drawer makers	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	20	97	95 - 101
End makers	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	17	97	94 - 103
Finishing and rubbing									
Painters, rough	21	107	100 - 111	(2/)	(2/)	(2/)	22	102	100 - 110
Rubbers, hand	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	30	93	87 - 94
Sanders, hand	35	95	88 - 100	28	116	103 - 141	54	93	88 - 98
Upholstering									
Cutters, cover	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	24	101	92 - 107
Sewers, cover	23	105	97 - 122	(2/)	(2/)	(2/)	16	99	93 - 104
Packing									
Packers, furniture	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	20	95	88 - 97
Wrappers, furniture	22	93	87 - 99	(2/)	(2/)	(2/)	28	97	90 - 101
Other									
Inspectors, final	(2/)	(2/)	(2/)	(2/)	(2/)	(2/)	18	105	101 - 111

1/ Wage rates are straight-time hourly earnings (excluding premium pay for overtime and night work). The unskilled jobs include lumber stackers (air-drying), lumber stackers (kiln-drying), machine off-bearers, janitors, hand truckers, and watchmen.

2/ Number of plants or workers too small to justify comparisons.

Table 3.--OCCUPATIONAL WAGE RATES IN UNION AND NONUNION PLANTS AS PERCENTAGES OF RATES FOR MEN IN 6 UNSKILLED JOB, 1/
WOOD FURNITURE INDUSTRY, OCTOBER 1945

Occupation and sex	Union plants						Nonunion plants		
	Time workers			Incentive workers			Time workers		
	Number of plants	Percent of rates for unskilled men		Number of plants	Percent of rates for unskilled men		Number of plants	Percent of rates for unskilled men	
		Average	Middle range within which half of the plants fell		Average	Middle range within which half of the plants fell		Average	Middle range within which half of the plants fell
Men									
Maintenance									
Carpenters, maintenance	33	136	123 - 153	-	-	-	29	138	123 - 156
Electricians, maintenance	26	158	137 - 173	-	-	-	24	148	138 - 171
Maintenance men, general utility	59	132	120 - 148	-	-	-	69	135	128 - 156
Mechanics, maintenance	31	145	135 - 161	(2/)	(2/)	(2/)	27	147	134 - 157
Saw filers	56	133	124 - 148	-	-	-	42	135	123 - 146
Supervision									
Working foremen, processing departments	62	147	136 - 161	(2/)	(2/)	(2/)	58	147	135 - 167
Lumber seasoning									
Kiln operators	21	127	124 - 161	-	-	-	27	122	117 - 141
Lumber stackers, air-drying	39	102	99 - 107	(2/)	(2/)	(2/)	35	103	99 - 105
Lumber stackers, kiln-drying	51	104	101 - 109	(2/)	(2/)	(2/)	62	102	99 - 105
Woodworking									
Belt sanders	61	113	105 - 119	35	145	124 - 155	71	116	110 - 124
Boring-machine operators, operate only	20	104	99 - 108	(2/)	(2/)	(2/)	18	105	98 - 110
Boring-machine operators, set-up and operate	40	122	118 - 127	27	146	135 - 162	67	121	115 - 129
Cut-off-saw operators	65	119	109 - 127	28	125	117 - 150	82	122	113 - 131
Drum sanders	53	117	108 - 125	30	141	118 - 165	70	116	110 - 125
Gluers, rough stock	57	108	103 - 117	37	129	115 - 158	69	109	104 - 118
Off-bearers, machine	57	97	90 - 99	32	107	99 - 114	80	97	95 - 101
Planer operators, set-up and operate	47	119	111 - 125	23	141	127 - 158	74	119	114 - 126
Rip-saw operators	65	117	109 - 124	31	129	120 - 142	81	116	110 - 126
Shaper operators, hand, operate only	19	112	102 - 124	(2/)	(2/)	(2/)	20	117	108 - 129
Shaper operators, hand, set-up and operate	58	133	126 - 141	32	157	125 - 169	70	133	122 - 139
Spindle carvers	22	143	126 - 161	(2/)	(2/)	(2/)	34	139	126 - 153
Turning-lathe operators, automatic, set-up and operate	27	131	125 - 151	17	158	140 - 169	45	128	120 - 139
Veneering									
Veneer-press operators	27	112	104 - 116	(2/)	(2/)	(2/)	31	111	104 - 117
Veneer tapers, machine	18	117	106 - 130	(2/)	(2/)	(2/)	25	112	106 - 117
Assembling									
Bed fitters	19	120	114 - 129	16	138	127 - 162	34	121	109 - 131
Case-clamp men	32	117	108 - 126	30	155	141 - 168	45	118	110 - 125
Case fitters	30	127	120 - 135	20	143	132 - 166	37	126	120 - 132
Chair makers	17	111	101 - 121	16	138	127 - 143	38	109	104 - 123
Drawer makers	19	116	110 - 122	18	144	127 - 158	33	105	102 - 114
End makers	17	106	102 - 113	(2/)	(2/)	(2/)	30	114	108 - 121
Frame makers	26	117	106 - 127	17	139	110 - 162	38	116	105 - 125
Finishing and rubbing									
Painters, finish	40	125	116 - 131	24	159	148 - 180	61	122	115 - 131
Painters, rough	38	115	108 - 126	29	143	133 - 153	51	111	107 - 118
Rubbers, hand	34	106	101 - 115	25	141	126 - 156	42	103	98 - 112
Rubbers, machine	17	111	106 - 123	22	151	127 - 166	34	109	104 - 116
Sanders, hand	43	104	99 - 110	36	139	120 - 158	57	103	98 - 107
Packing									
Packers, furniture	52	110	102 - 117	30	136	126 - 155	62	107	102 - 115
Wrappers, furniture	16	98	94 - 114	(2/)	(2/)	(2/)	32	101	98 - 107
Other									
Inspectors, final	52	121	113 - 135	(2/)	(2/)	(2/)	62	123	115 - 135
Janitors	73	95	90 - 100	(2/)	(2/)	(2/)	76	97	93 - 99
Truck drivers	66	117	109 - 126	(2/)	(2/)	(2/)	68	113	105 - 120
Truckers, hand	44	97	93 - 100	(2/)	(2/)	(2/)	48	100	97 - 105
Watchmen	79	102	94 - 107	-	-	-	82	102	97 - 104
Women									
Woodworking									
Belt sanders	16	98	95 - 106	(2/)	(2/)	(2/)	15	93	90 - 101
Boring-machine operators, operate only	18	100	93 - 102	(2/)	(2/)	(2/)	23	98	94 - 100
Off-bearers, machine	41	91	87 - 96	15	100	95 - 107	56	92	88 - 96
Finishing and rubbing									
Painters, rough	17	106	101 - 110	(2/)	(2/)	(2/)	26	102	97 - 111
Sanders, hand	36	97	91 - 99	26	111	103 - 129	53	93	87 - 97
Upholstering									
Sewers, cover	19	105	99 - 121	15	135	123 - 158	20	97	94 - 105
Packing									
Packers, furniture	18	96	88 - 110	(2/)	(2/)	(2/)	17	94	83 - 97
Wrappers, furniture	24	96	90 - 100	(2/)	(2/)	(2/)	26	94	86 - 100

1/ Wage rates are straight-time hourly earnings (excluding premium pay for overtime and night work). The unskilled jobs include lumber stackers (air-drying), lumber stackers (kiln-drying), machine off-bearers, janitors, hand truckers, and watchmen.

2/ Number of plants or workers too small to justify comparisons.

APPENDIX

Trend in Regional Wage Relationships, 1937-1945

The relatively high wage-standing of unskilled occupations in the Southern furniture industry, as contrasted with their position in the North, does not necessarily reflect the general labor market conditions of the South in 1945. On the contrary, recent occupational wage relationship studies prepared by the Bureau of Labor Statistics indicated that in some industries low-skilled workers occupied relatively poorer positions in the South than in the North. These industries, however, either maintained a higher level of wages than the furniture industry or were local in character; they were, consequently, largely outside the scope and effect of the minimum wage requirements of the Fair Labor Standards Act. While it would appear that the legal minimum wage, as applied to the furniture industry in the South, had raised the level of the low-paid workers without effecting compensatory increases to other occupations, there is reason to believe that this feature of the Southern furniture scale is older than the Fair Labor Standards Act. An examination of the trend in wage relationships since 1937 throws some light on this matter as well as on others relating to comparative wage relationships.

The Bureau of Labor Statistics surveyed occupational wage rates in the wood household furniture industry in October 1937, one year prior to the enactment of the Fair Labor Standards Act. Another survey was made in February 1941, when a 30-cent minimum wage was in effect. The present study, covering a somewhat broader field, relates to October 1945 and, of course, a 40-cent minimum wage. These data do not permit precise comparisons, but it is possible to arrive at a rough evaluation of the trend in regional wage relationships.

Although no legal floor to wages was operative in October 1937, a distribution of workers in Southern furniture plants by average hourly earnings showed a large concentration at 30 cents an hour, indicating that many plants had maintained the N.R.A. minimum. 1/ About half of the unskilled workers, however, were earning less than 30 cents. Nevertheless, 1937 occupational wage relationships in the South, in comparison with the North, manifested essentially the same features as has been indicated for October 1945--a narrower grouping of the lower and medium-wage occupations and a wider spread between the medium-wage and the higher-wage jobs. The relative advantage of the middle group of occupations in the North, however, was not as marked as it later became.

1/ The N.R.A. code was abolished in May 1935. Between May 1935 and October 1937 average hourly earnings increased in the furniture industry.

Between October 1937 and February 1941 there was no apparent change in the general level of wages in the North and South, although a minimum wage had been established and raised to 30 cents in the interim. The differential between the low-wage occupations and other occupations narrowed in the South, but there was no appreciable change in Northern wage relationships.

Notwithstanding a sharp increase in straight-time average hourly earnings between February 1941 and October 1945, a comparison between Northern and Southern wage relationships for the earlier period shows a remarkable similarity to the picture for October 1945. The generalizations arrived at from the more current data require no significant modifications to be applicable to the 1941 situation. It follows, therefore, that if the increase in the minimum wage from 30 to 40 cents an hour had any effect upon the relative position of the low-paid furniture workers in the South, as compared with the North, this effect was evidently counterbalanced by other forces, including the influence of war-time production and labor conditions.

INDUSTRY WAGE STUDIES BULLETINS

The following bulletins, issued as part of the Bureau's Industry Wage Studies Program, are available (in addition to local tabulations described in the Preface).

General

A Descriptive Statement
Job Descriptions for Wage Studies -
  Appendix A .... Metalworking
  Appendix B .... Mining
  Appendix C .... Apparel
  Appendix D .... Electric Light and Power; Warehousing and Storage
  Appendix E .... Structural Clay Products
  Appendix F .... Service Industries (Hotels, Automobile Repair, Power Laundries, and Cleaning and Dyeing)
  Appendix G .... Retail Trade
  Appendix H .... Footwear
  Appendix I .... Bakeries

Series 1 - Occupational Wage Relationships

No. 1 Machinery, 1945
2 Machine Tool Accessories, 1945
3 Foundries, 1945
4 Machine Tools, 1945
5 Electric Light and Power, 1945
6 Bakeries, 1945
7 Wood Furniture, 1945

In Preparation

Cotton Textiles, 1946

Series 2 - Wage Structure

No. 1 Machinery, 1945
2 Machine Tool Accessories, 1945
3 Machine Tools, 1945
4 Electroplating and Polishing, 1945
5 Fabricated Structural Steel, 1945
6 Iron and Steel Forgings, 1945
7 Sheet Metal, 1945
8 Foundries, 1945
9 Small Arms, 1945
10 Aircraft Engines and Parts, 1945
11 Power Boilers, 1945
12 Bituminous Coal Mines, 1945
13 Office Workers - Metalworking, 1945
14 Electric Generating and Distribution Equipment, 1945
15 Cotton Garments, 1945
16 Structural Clay Products, 1945
17 Military Tanks, 1945
18 Power Laundries, 1945
19 Radios, 1945
20 Electric Light and Power, 1945
21 Limited Price Variety Stores, 1945
22 Bakeries, 1945
23 Footwear, 1945
24 Warehousing and Storage, 1945
25 Industrial Chemicals, 1946
26 Department and Clothing Stores, 1945
27 Cigars, 1946
28 Tobacco Products, other than Cigars, 1946

In Preparation

Communication Equipment, 1945
Hosiery, 1946
Jewelry, 1946
Paperboard Containers and Boxes, 1945
Pulp, Paper, and Paperboard, 1945
Women's and Misses' Dresses, 1945
Wood Furniture, 1945

331.2
Un342o
no. 8

OCCUPATIONAL WAGE RELATIONSHIPS

RAYON AND SILK TEXTILES

1946

SERIES I
NO. 8

THE LIBRARY OF THE
JUL 21 1947
UNIVERSITY OF ILLINOIS

UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

WAGE ANALYSIS BRANCH
INDUSTRY WAGE STUDIES DIVISION
HARRY OBER, CHIEF

PREFACE

The Industry Wage Study program of the Bureau of Labor Statistics is designed to yield a variety of wage data for use in collective bargaining, wage determination, placement, and minimum wage administration.

The results of the Industry Wage Studies are made available in two series of bulletins. Series 1, entitled "Occupational Wage Relationships", provides measure of prevailing wage relationships among key occupations in each industry. Series 2 on "Wage Structure" is devoted to an analysis of actual hourly earnings (straight-time) and the elements that influence variations in wages, such as location, size of establishment, and method of wage payment. This series also presents information relating to the occupational composition of the industry's labor force and such practices as shift differential payments, paid vacations, paid lunch periods, nonproduction bonuses, insurance, sick leave, and incentive wage systems. Locality tabulations (forms OWR-17 and 18) are available in the regional offices of the Bureau.

This bulletin is eighth in the Occupational Wage Relationship series. Similar studies for the cotton goods, woolen and worsted, and dyeing and finishing industries are in preparation.

May 1947

OCCUPATIONAL WAGE RELATIONSHIPS IN THE RAYON AND SILK TEXTILE INDUSTRY, JUNE-JULY 1946 [1]

INTRODUCTION

A high degree of occupational specialization prevails in rayon and silk mills, as in other textile mills. With rare exceptions, it is the practice to maintain a single mill rate or a range of rates (principally the former) for all workers in the same job classification. Pay differentials among jobs, considered either in absolute terms or as ratios or percentages, constitute, therefore, an important part of a mill's wage structure. Production processes and division of labor being much alike for all mills in the same field of competition, the setting of appropriate pay differentials among occupations can be facilitated by knowledge of prevailing practices in this regard, just as the determination of actual wage levels is aided by a consideration of related data.

This study examines the central tendencies in occupational wage relationships in the rayon and silk industry and the variations which might be attributable to differences in location, size of mill, and unionization. In order to measure occupational wage differentials within each mill and to arrive at a single figure which would express the average standing of each occupation among the mills studied, eliminating as far as possible the influence of variations among mills in actual wage levels and employment, the following method was used: In each mill the average hourly rates[2] for selected occupations[3] were converted to percentages of a base consisting of the combined rates for three unskilled male occupational groups -- bobbin boys, general hand truckers, and janitors. In this manner, a ladder-like arrangement of occupational wage levels, differentiated by sex of workers and method of wage payment, was developed for each mill. To obtain a representative scale for the industry as a whole and for the major subdivisions, the mill percentages computed for each occupational category were averaged. The resulting scales indicate the average relationship which occupational wage rates bear to what approximates the rate for unskilled men and to each other. To indicate, at least in part, the variation in wage practices found in the industry, the middle range within which one-half of the mill percentages fell is shown for each occupation in the accompanying tables. [4]

---

[1] Prepared by Joseph W. Bloch

[2] Or average hourly earnings in the case of workers paid according to output. Premium pay for overtime and night work were excluded from these data.

[3] Copies of the job descriptions used to classify workers are available upon request (Job Descriptions for Wage Studies: Textiles- Appendix L).

[4] The median or midpoint in an array of mill percentages for the same occupation was selected as the average percentage. The middle range, therefore, covers that fourth of the mills falling immediately below or above the median or average.

GENERAL WAGE PATTERN

This study is based upon the wage practices of 109 establishments primarily engaged in producing rayon and silk broad woven goods (cloth mills) and 44 establishments producing rayon and silk yarn and thread (yarn mills). Each of these 153 mills had more than 50 workers; combined, they employed 51,500 workers or over three-fifths of the industry's plant labor force.[5] Other characteristics of the mills studied are summarized in table 1. Cloth mills and yarn mills differ substantially in occupational structure, in size, and in other factors presumed to influence wage relationships, hence data are shown separately for each type of mill. The major part of this study, however, is devoted to the more important segment of the industry, the cloth mills.

Cloth Mills

Loom fixers (other than Jacquard) paid on a time basis received 67 percent more, on the average, than the men in the unskilled jobs used as a base; those paid on an incentive basis earned 74 percent more (table 2). Below loom fixers in the average wage scale came maintenance machinists and electricians, at about the same level, followed by men and women weavers (typically paid on a piece-rate basis), other skilled maintenance workers, and men slasher tenders, grouped within 140 to 150 percent of the base. At the bottom of the scale were watchmen, the 3 base occupations, and women janitors, clustered within a range so narrow as to have no significance in terms of actual earnings.[6]

---

[5] This report utilizes the extensive wage data obtained through a survey of representative mills conducted under the direction of the Bureau's regional wage analysts. Another bulletin, "Wage Structure: Rayon and Silk, 1946", describes the wage structure of the industry in terms of actual hourly earnings. The relationships indicated in the present study will not necessarily coincide with the relationships implicit in the average earnings data presented in the Wage Structure bulletin, inasmuch as the two studies differ significantly in purpose and method. Moreover, it was desirable to exclude from this report rayon and silk mills employing fewer than 50 workers, and it was necessary to exclude those mills with no workers in the base jobs.

[6] The approximate percentage differential between any 2 occupations may be computed by using the percentages shown as absolute numbers. For example, the figures for men weavers on box looms and automatic plain looms are 149 and 142, respectively. The former, therefore, were paid 5 percent more than the latter (149/142).

The following table, presenting a distribution of cloth mills by the actual average earnings of workers in the 3 base jobs, offers a means of evaluating, in a rough way, the money value of the differentials shown, at the industry's 1946 wage level:

Combined hourly earnings of 3 base jobs	Number of cloth mills
Less than 60 cents	11
60.0 to 64.9 cents	19
65.0 to 69.9 cents	66
70.0 cents and over	13
Total	109

Thus, assuming a base of 67 cents (the median rate) in the illustration offered above, the difference between weavers on box looms and automatic plain looms would amount to approximately 5 cents an hour.

Among the few jobs in which both men and women were engaged in substantial numbers, there was no evidence that men held better positions in the wage scale than women. In weaving, noteworthy as a relatively skilled job apportioned almost equally between men and women, the differentials above the low-skilled jobs and the relationships to the high-skilled jobs were, on the average, about the same for men and women. Moreover, the pay differences among weavers relating to type of loom operated, small as they appeared, were the same for the two sexes. Women twister tenders and spinners were also at an equivalent level with men doing the same work.

Yarn Mills

Without weavers, loom fixers, and slasher tenders, the average wage scale for yarn mills showed a marked concentration of processing occupations close to the unskilled level (table 3). As in cloth mills, women yarn winders, the largest occupational category in rayon yarn manufacturing, held a negligible hourly-rate differential above the level obtaining for bobbin boys and janitors. On an incentive pay basis, however, women yarn winders enjoyed a substantial differential (18 percent) over men in the base occupations.

The occupations common to yarn and cloth mills appeared in much the same order in the two wage scales. However, the maintenance workers were rated lower in yarn mills than in cloth mills.

Changes in Wage Relationships Since 1940

A rayon and silk textile survey made by the Bureau of Labor Statistics in September 1940 affords a basis for evaluating the movement in wage relationships between 1940 and 1946.[7] During this 6-year period, straight-time hourly earnings of all rayon and silk workers rose from 44 cents, on the average, to 79 cents. In September 1940, about 20 percent of the workers were paid 32.5 cents an hour, the legal minimum at that time; in July 1946, only 13 percent were earning less than 65 cents an hour, a minimum adopted by a large number of mills.

---

[7] The 1940 data are published in the Monthly Labor Review, August 1941. For comparable 1946 data, see "Wage Structure: Rayon and Silk Textiles, 1946". These data do not permit as precise a comparison of wage relationships as would be desired, but they do reveal, on an over-all basis, the direction of the changes that occurred. Data for cloth and yarn mills are combined for this comparison.

This rise in wages had the effect of increasing the absolute differentials between occupational earnings in the industry as a whole. However, the cents-per-hour differentials did not increase sufficiently for some occupations so as to preserve their relative positions in the industry's wage structure. Thus, slasher tenders, loom fixers, and skilled maintenance workers lost ground between 1940 and 1946. On the other hand, weavers, both men and women, maintained in 1946 roughly the same position relative to the low-skilled occupations that they held in 1940, and bettered their position with respect to other skilled workers. [8]

The comparison between 1940 and 1946 occupational earnings also indicated that the increase in minimum wage standards in the industry did not result in compressing the wage levels of the many occupations that cluster near the lower level of earnings. On the contrary, a slight widening of wage spread was observed among those low-skilled jobs in which women were engaged.

VARIATION IN WAGE RELATIONSHIPS WITH REGION, UNIONIZATION, AND SIZE OF MILL.

Location, unionization, and size of mill as measured by employment are important among the factors that, separately or together, explain the variations in absolute wage levels in a large and dispersed industry. However, the influence of these factors on the ranking of occupations by earning power and the relative differentials among occupations or skill levels is less well known. The following section notes the differences in wage patterns between Northern and Southern cloth mills, union and nonunion mills, and large and small mills. [9]

---

[8] Since weavers are generally paid on an incentive basis, this advantage may have been gained, in whole or in part, through increased productivity rather than through more or larger wage-rate increases.

[9] The small number of mills covered and the simplicity of occupational structure preclude a similar analysis for yarn mills.

Note that the stability of the percentages and middle ranges is weakened somewhat by the small number of mills in each category. These figures, therefore, are subject to greater chance variation than the industry-wide data previously presented. While differences in wage patterns, where they exist, are revealed by an analysis of all the data, the specific values expressed for each occupation must be considered only as approximations. In some instances, moreover, possible differences in exact job content and work loads should be taken into account.

Regional Differences in Wage Relationships

On the whole, skilled workers enjoyed a greater wage spread over the less-skilled in Northern cloth mills 10/ than in Southern mills (table 4). The relative advantage for Northern workers was substantial in the case of men slasher tenders, carpenters, mechanics and machinists, but was slight for electricians, loom fixers, and men and women box loom weavers. Weavers on plain looms, alone among the higher-paid occupations studied, held identical positions in relation to the base in Northern and Southern wage scales.

Wage practices regarding occupational differentials appeared to be more uniform among Southern mills than among Northern mills. In the first place, there was less variation in the South in the average rates paid to men in the three unskilled jobs used as a base. 11/ Secondly, and in part a consequence of the above factor, the middle ranges as shown in table 4 were consistently narrower for Southern than for Northern mills. This greater degree of uniformity among Southern mills may be accounted for, at least in part, by the fact that there were fewer small mills in the South than in the North. 12/

Between 1940 and 1946, men and women weavers improved their relative positions in Northern wage scales, while the status of men slasher tenders, loom fixers and maintenance workers declined. In the South, all of the higher-paid occupations in which men were engaged lost ground relative to the lesser-skilled jobs. Data available for women weavers on automatic plain looms indicate, however, that they had gained in relation to men weavers and to other skilled groups in the South. There appeared to be no appreciable change in wage spread within the group of lower-paid occupations in the North and South, although, as indicated above, the gap between the group as a whole and many of the higher-skilled jobs, percentagewise rather than in terms of cents-per-hour, had narrowed between 1940 and 1946.

10/ Including mills in New England and Middle Atlantic regions.

11/ Men hand truckers, bobbin boys and janitors averaged between 60 and 70 cents an hour in all but one of the Southern mills studied. On the other hand, their averages fell above or below this range in 30 percent of the Northern mills.

12/ In contrast to the many integrated mills located in the South, most of the Northern mills purchased yarn in a form ready for weaving, while many wove cloth on a contract basis.

Wage Relationships in Union and Nonunion Mills [13]

Insofar as relationships among the basic processing jobs were concerned, there was, on the whole, little difference between average wage scales in union and nonunion mills (table 5). The important exceptions were men slasher tenders, who appeared considerably higher in the union than in the nonunion wage ladder, and women plain loom weavers, who were more advantageously situated in nonunion mills.

There was, however, a distinct tendency in unionized mills for maintenance occupations (except general utility men) to be found at a higher level than in nonunion mills. This was particularly apparent in the case of mechanics, carpenters, and machinists.

Wage Relationships in Large and Small Mills

A substantial differential between weavers on box looms and weavers on automatic plain looms appeared in the average wage scale for mills with from 51 to 200 workers (table 6). It was this differential that made for the most significant variation between the wage scales for large and small mills. Box loom weavers, both men and women, occupied comparatively high positions and plain loom weavers comparatively low positions in the wage pattern of small mills. Among the other occupations for which comparisons were possible, only general utility maintenance men were placed at markedly different levels in the two scales. It is interesting to note the close similarity between the wage pattern for large mills and that for the industry as a whole (table 2).

---

[13] Mills were classified as union mills if a majority of workers were covered by the terms of a union agreement. Hence, some of the selected occupations may include workers who, although working in union mills, were not covered by union wage scales.

Table 1.-- CHARACTERISTICS OF RAYON AND SILK MILLS SELECTED FOR WAGE RELATIONSHIP STUDY, 1946

Item	Number of mills in -		
	United States	North	South
TOTAL CLOTH MILLS	109	77	32
Unionization			
Union mills	40	37	3
Nonunion mills	69	40	29
Mill size			
51-200 employees	51	46	5
More than 200 employees	58	31	27
TOTAL YARN MILLS	44	29	15
Unionization			
Union mills	8	8	-
Nonunion mills	36	21	15
Mill size			
51-200 employees	26	18	8
More than 200 employees	18	11	7

Table 2.--WAGE RATES FOR SELECTED OCCUPATIONS AS PERCENTAGES OF RATES FOR MEN IN 3 UNSKILLED JOBS, 1/ RAYON AND SILK CLOTH MILLS, JUNE-JULY 1946

Occupation, sex, and method of wage payment	Number of mills	Percent of rates for unskilled men	
		Average	Middle range within which half the mills fell
TIME WORKERS			
Men			
Loom fixers, other than Jacquard	87	167	162-176
Machinists, maintenance	47	155	145-169
Electricians, maintenance	52	154	145-162
Mechanics, maintenance	46	143	131-157
Carpenters, maintenance	49	143	135-156
Slasher tenders	85	141	131-155
Maintenance men, general utility	33	135	120-159
Stock clerks	61	116	110-130
Twister tenders and spinners, 5-B	36	107	104-122
Watchmen	82	101	99-107
Truckers, hand (general)	74	100	100-102
Truckers, hand (bobbin boys)	78	100	100-101
Janitors	79	99	97-100
Women			
Inspectors, cloth, machine	63	107	103-114
Twister tenders and spinners, 5-B	41	106	103-110
Inspectors, cloth, hand	37	105	101-108
Winders, yarn	65	104	100-110
Janitors	27	98	95-100
INCENTIVE WORKERS			
Men			
Loom fixers, other than Jacquard	23	174	170-174
Weavers, box loom	43	149	142-155
Weavers, dobby loom	32	144	139-159
Weavers, automatic plain loom	48	142	130-150
Women			
Weavers, box loom	40	148	139-158
Weavers, dobby loom	30	143	134-153
Weavers, automatic plain loom	43	140	132-148
Twister tenders and spinners, 5-B	20	119	113-140
Winders, yarn	67	117	112-123

1/ Wage rates are straight-time hourly earnings (excluding premium pay for overtime and night work). The unskilled jobs are: hand truckers (general), hand truckers (bobbin boys), and janitors.

Table 3.--WAGE RATES FOR SELECTED OCCUPATIONS AS PERCENTAGES OF RATES FOR MEN IN 3 UNSKILLED JOBS, 1/ RAYON AND SILK YARN MILLS, JUNE-JULY 1946

Occupation, sex, and method of wage payment	Number of yarn mills	Percent of rates for unskilled men	
		Average	Middle range within which half of the mills fell
TIME WORKERS			
Men			
Electricians, maintenance	12	146	135-166
Mechanics, maintenance	21	140	132-153
Carpenters, maintenance	12	133	122-147
Maintenance men, general utility	16	125	118-138
Stock clerks	15	113	109-118
Twister tenders and spinners, 5-B	26	107	100-112
Winders, yarn	11	105	103-108
Watchmen	31	100	100-107
Truckers, hand (general)	20	100	100-102
Truckers, hand (bobbin boys)	34	100	100-100
Janitors	26	100	98-100
Women			
Twister tenders and spinners, 5-B	29	103	100-108
Winders, yarn	30	103	100-108
Inspectors, yarn	21	103	100-108
Janitors	12	100	99-100
INCENTIVE WORKERS			
Women			
Winders, yarn	26	118	110-120

1/ Wage rates are straight-time hourly earnings (excluding premium pay for overtime and night work). The unskilled jobs are: hand truckers (general), hand truckers (bobbin boys), and janitors.

Table 4.--WAGE RATES FOR SELECTED OCCUPATIONS AS PERCENTAGES OF RATES FOR MEN IN 3 UNSKILLED JOBS, 1/ RAYON AND SILK CLOTH MILLS BY REGION, JUNE-JULY 1946

Occupation, sex, and method of wage payment	North			South		
	Number of mills	Percent of rates for unskilled men		Number of mills	Percent of rates for unskilled men	
		Average	Middle range within which half of the mills fell		Average	Middle range within which half of the mills fell
TIME WORKERS						
Men						
Loom fixers, other than Jacquard	68	169	163-177	19	164	162-166
Machinists, maintenance	27	165	149-179	20	147	142-156
Electricians, maintenance	33	155	150-165	19	152	143-161
Mechanics, maintenance	22	154	136-165	24	135	127-148
Carpenters, maintenance	27	153	141-158	22	137	128-145
Slasher tenders	56	147	136-161	29	135	130-141
Maintenance men, general utility	26	136	120-162	(2/)		
Stock clerks	33	116	108-130	28	116	111-124
Twister tenders and spinners, 5-B	19	112	106-138	17	106	103-107
Watchmen	57	101	99-108	25	101	100-104
Truckers, hand (general)	45	100	100-103	29	101	100-102
Truckers, hand (bobbin boys)	49	100	99-100	29	101	100-102
Janitors	48	100	98-100	31	98	97-99
Women						
Inspectors, cloth, machine	40	106	100-110	23	110	106-114
Twister tenders and spinners, 5-B	23	106	103-111	18	106	104-107
Inspectors, cloth, hand	28	104	101-107	(2/)		
Winders, yarn	54	103	99-110	11	105	103-107
Janitors	13	100	96-102	14	97	94-99
INCENTIVE WORKERS						
Men						
Weavers, box loom	28	152	142-165	15	147	141-149
Weavers, dobby loom	25	150	140-168	(2/)		
Weavers, automatic plain loom	34	142	128-152	14	141	133-147
Women						
Weavers, box loom	26	153	139-166	14	147	138-149
Weavers, dobby loom	24	146	131-154	(2/)		
Weavers, automatic plain loom	30	140	128-152	13	140	133-143
Winders, yarn	36	119	113-126	31	114	111-117

1/ Wage rates are straight-time hourly earnings (excluding premium pay for overtime and night work). The unskilled jobs are: hand truckers (general), hand truckers (bobbin boys), and janitors.

2/ Number of mills or workers too small to justify comparisons.

Table 5.--WAGE RATES FOR SELECTED OCCUPATIONS AS PERCENTAGES OF RATES FOR MEN IN 3 UNSKILLED JOBS, 1/ RAYON AND SILK CLOTH MILLS BY UNIONIZATION, JUNE-JULY 1946

Occupation, sex, and method of wage payment	Union cloth mills			Nonunion cloth mills		
	Number of mills	Percent of rates for unskilled men		Number of mills	Percent of rates for unskilled men	
		Average	Middle range within which half of the mills fell		Average	Middle range within which half of the mills fell
TIME WORKERS						
Men						
Loom fixers, other than Jacquard	35	168	162-174	52	167	163-177
Machinists, maintenance	19	160	149-171	28	151	144-165
Mechanics, maintenance	14	157	143-167	32	137	128-152
Electricians, maintenance	21	155	153-165	31	152	143-161
Slasher tenders	32	155	136-163	53	137	130-143
Carpenters, maintenance	18	154	149-167	31	138	128-149
Maintenance men, general utility	13	130	119-137	20	137	126-163
Stock clerks	20	114	112-130	41	116	109-129
Watchmen	32	103	100-108	50	100	99-106
Truckers, hand (general)	25	101	100-104	49	100	100-102
Truckers, hand (bobbin boys)	30	100	99-100	48	100	100-102
Janitors	30	100	98-100	49	99	97-100
Women						
Twister tenders and spinners, 5-B	13	108	103-114	28	106	103-108
Inspectors, cloth, machine	23	106	103-108	40	109	103-114
Inspectors, cloth, hand	16	106	102-107	21	104	100-109
Winders, yarn	22	104	101-109	43	103	100-110
INCENTIVE WORKERS						
Men						
Weavers, box loom	18	149	135-153	25	149	144-157
Weavers, automatic plain loom	20	140	128-149	28	142	131-150
Women						
Weavers, box loom	16	147	138-157	24	149	146-158
Weavers, automatic plain loom	15	135	128-143	28	141	133-152
Winders, yarn	28	119	114-127	39	115	111-118

1/ Wage rates are straight-time hourly earnings (excluding premium pay for overtime and night work). The unskilled jobs are: hand truckers (general), hand truckers (bobbin boys), and janitors.

Table 6.--WAGE RATES FOR SELECTED OCCUPATIONS AS PERCENTAGES OF RATES FOR MEN IN 3 UNSKILLED JOBS, 1/ RAYON AND SILK CLOTH MILLS BY SIZE OF MILL, JUNE-JULY 1946

Occupation, sex, and method of wage payment	Cloth mills with more than 200 workers			Cloth mills with 51-200 workers		
	Number of mills	Percent of rates for unskilled men		Number of mills	Percent of rates for unskilled men	
		Average	Middle range within which half of the mills fell		Average	Middle range within which half of the mills fell
TIME WORKERS						
Men						
Loom fixers, other than Jacquard	43	166	163-172	44	169	162-178
Electricians, maintenance	43	154	145-162	(2/)		
Machinists, maintenance	41	152	145-165	(2/)		
Mechanics, maintenance	35	144	132-157	(2/)		
Carpenters, maintenance	45	143	134-154	(2/)		
Slasher tenders	51	141	134-153	34	141	131-160
Maintenance men, general utility	17	128	120-138	16	137	119-163
Stock clerks	49	116	111-128	12	117	108-145
Twister tenders and spinners, 5-B	26	106	101-112	(2/)		
Watchmen	47	102	100-107	35	100	95-105
Truckers, hand (general)	44	101	100-102	30	100	100-103
Truckers, hand (bobbin boys)	51	100	100-102	27	100	100-100
Janitors	50	99	97-100	29	100	97-100
Women						
Inspectors, cloth, machine	39	108	102-114	24	107	103-112
Inspectors, cloth, hand	22	107	102-113	15	102	96-107
Twister tenders and spinners, 5-B	28	106	103-108	13	108	103-114
Winders, yarn	26	105	100-109	39	103	100-110
Janitors	23	99	95-100	(2/)		
INCENTIVE WORKERS						
Men						
Weavers, box loom	23	148	144-150	20	153	141-165
Weavers, automatic plain loom	34	142	131-150	14	138	126-160
Weavers, dobby loom	22	140	139-150	(2/)		
Women						
Weavers, box loom	21	147	142-150	19	153	139-166
Weavers, automatic plain loom	29	142	132-148	14	135	128-144
Weavers, dobby loom	21	141	131-147	(2/)		
Twister tenders and spinners, 5-B	16	117	111-123	(2/)		
Winders, yarn	50	117	112-123	17	116	111-125

1/ Wage rates are straight-time hourly earnings (excluding premium pay for overtime and night work). The unskilled jobs are: hand truckers (general), hand truckers (bobbin boys), and janitors.

2/ Number of mills or workers too small to justify comparisons.